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ABSTRACT

National results for writing, one of the three subject areas assessed during the first year of data collection by National Assessment, are presented in this volume. National results for the other two subjects, science and citizenship, are presented in separate volumes. The purpose of this project is to explore whether an assessment of educational outcomes is possible, and, if so, to develop the plan and methods for conducting it. The Educational Testing Service (ETS) of Princeton, N.J., developed the objectives and exercises in writing, working with subject matter experts and others concerned with educational planning. Four broad objectives were defined: (1) write to communicate adequately in a social situation, (2) write to communicate adequately in a business or vocational situation, (3) write to communicate adequately in a scholastic situation, (4) appreciate the value of writing. Examples of types of behaviors expected at each of the four age levels (ages 9, 13, 17 and adults) are spelled out. The percentage of respondents who were able to complete each writing task successfully is shown. A number of writing tasks were given at more than one age and thus allow comparisons between ages. Results of these comparisons are given. The exercises reported here show what people at four age levels know, what they can do, and what their attitudes are in one subject area, writing. Five appendices are included. For related document, see TE 002 475. (CK)

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WRITING

NATIONAL RESULTS
1970

REPORT 3

TE 002 474

NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS
A PROJECT OF THE EDUCATION COMMISSION OF THE STATES

NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS

A Project of the Education Commission of the States

Russell W. Peterson, Governor of Delaware, Chairman, Education Commission of the States
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Assessment Reports

#1	Science: National Results	July, 1970
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NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS

A Project of the Education Commission of the States

REPORT 3

1969-1970 WRITING: NATIONAL RESULTS

November, 1970

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A list of persons who have made substantial contributions to this report, from the beginning of National Assessment in 1964 to this date, would comprise almost a book in itself. Active guidance of the project during its formative stages was with Ralph Tyler and the Exploratory Committee on Assessing the Progress of Education. The details of the plan itself were developed by the Technical Advisory Committee (now called the Analysis Advisory Committee, ANAC) and staff directors Stephen Withey and Jack Merwin. As the operational phase began, the Exploratory Committee, expanded in membership, became the Committee on Assessing the Progress of Education, chaired by George Brain. Over a year ago National Assessment became a project of the Education Commission of the States with active direction from a Policy Committee chaired by James Hazlett.

Original preparation of objectives and exercises in the writing area was by the Educational Testing Service. Review of these materials was made by dozens of consultants, both subject matter specialists and lay persons, under the general monitoring role of the National Assessment staff. Administration of the exercises was handled by the Research Triangle Institute (RTI) and the Measurement Research Center (MRC). Scoring and data processing were handled by MRC. Early analyses of results were by MRC. Additional analyses were conducted by Perry Gluckman, NAEP consultant, assisted by Joan Wilson of Thompson, Ramo, Wooldridge, Roger Bederman of MRC, and Daniel Allen of RTI; and by National Assessment of Educational Progress staff members David Bayless, Ellen Robinson, Jim Robinson, and Virginia Goslin. Preparation of this report was done by Eleanor Norris and John Milholland, with the assistance of Henry Slotnick, Scott Newcomb, William Mehrens, Barbara Goodwin, Lisa MacDonald, and Alice Levin. Able secretarial support was provided by Patricia Werring, Kay Horton, and Lyn Wiley. Other staff members and members of ANAC reviewed the manuscript. Cliff Dochterman, director of public relations for the Education Commission of the States, provided the valuable coordination necessary for publishing the reports.

No words can sufficiently pay tribute to the dedicated efforts of staff and consultants who accepted the difficult task of both analyzing these data and preparing reports while the entire National Assessment data handling system was itself being developed. Only those who have been involved in similar crash

programs will fully appreciate the hundreds of evenings and weekends of effort that were necessary to meet the goal of this reporting. Without a staff truly dedicated to National Assessment and to the goal of helping to move American education forward, it would not have been accomplished.

Frank B. Womer
Staff Director

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1.

NATIONAL ASSESSMENT OF WRITING

National results for writing, one of the three subject areas assessed during the first year of data collection by National Assessment, are presented in this volume. National results for the other two subjects, science and citizenship, are presented in separate volumes.[1]

The results for these three subject areas are the first fruits of planning and development which began in 1964, when the Exploratory Committee on Assessing the Progress of Education (ECAPE) was established to examine the possibility of conducting an assessment of educational attainments on a national basis. But they are only the beginning of the type of information the project is designed to provide--descriptions of what groups of Americans know and can do and, over a period of time, of whether there is progress in educational attainments.

During 1971, the results for the first three subject areas will be reported further by:*

Geographical region (Northeast, Southeast, Central, and West)

Size of Community (big city, fringes around big cities, medium-size cities, and smaller (less populated) places)

Type of Community (impoverished inner city, affluent suburbs, and rural areas)

Sex

Color (black and non-black)

Educational level of the parent who achieved the highest level of schooling.

Whether progress in educational attainments is occurring cannot be examined until each subject area is assessed more than once. The initial reports provide benchmark data against which to compare results of future assessments.

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[1] Titles of National Assessment reports are listed on the inside front cover of this volume. Reports are available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

* Appendix A defines these groups more specifically.

By the spring of 1975, six subject areas will have been assessed at least once (mathematics, literature, music, social studies, art, and career and occupational development), and four will have been assessed twice (science, reading, writing, and citizenship). Not until the twelfth year of the project will all subjects have been assessed at least twice, in accordance with current scheduling and cycling plans.

National Assessment's method for reporting results is to show actual exercises (questions) given, and percentages of acceptable and unacceptable responses. Approximately 50 percent of the writing exercises administered are reported here. The remainder are not made public so that they may be used when writing is assessed again, thus allowing comparisons of results for the same exercises given at different times.

Development of the Project

When ECAPE was established in 1964 by the Carnegie Corporation, it was charged with exploring whether an assessment of educational outcomes was possible and, if so, with developing the plan and methods for conducting it. It was judged possible, and a plan was devised which called for the periodic assessment of the 10 subject areas at four age levels: 9-year-olds, most of whom have completed primary grades; 13-year-olds, most of whom have completed intermediate education; 17-year-olds, most of whom have completed high school; and young adults between 26-35, most of whom have completed their formal education. The 17-year-old group includes young people still in school and those no longer in school (drop-outs and those who had completed high school earlier than usual).

Developing materials for assessing knowledge, skills, and attitudes in the 10 subject areas began with the identification of educational goals, or objectives, in each area, and then preparing exercises to assess how well the objectives were being attained. The work of developing these materials was carried out by educational testing and research organizations under contract to National Assessment.

The Educational Testing Service (ETS) of Princeton, N.J., developed the objectives and exercises in writing, working with subject matter experts, educators, and lay people concerned with educational planning. Four broad objectives were defined:

I. Write to Communicate Adequately in a Social Situation.

II. Write to Communicate Adequately in a Business or Vocational Situation.

III. Write to Communicate Adequately in a Scholastic Situation.

IV. Appreciate the Value of Writing.

Each of these objectives was elaborated in more specific terms. For example, under the major objective, writing in a social situation:

> ...communicates information and observes established social customs, usually under relatively informal conditions. For this reason, social writing normally does not stress strict mechanical correctness. ...Of course, correctness is hoped for here as in any endeavor and "better" performance anticipated as the population matures, but social communication relies principally on factual accuracy, organization, and flavor.

Examples of types of behaviors expected at each of the four age levels are spelled out. For example, under Objective I, 9-year-olds are expected to be able to write invitations, such as inviting parents to a PTA meeting; to write thank-you notes; and to record telephone messages for someone not at home. Thirteens should be able to do these things, and to write personal letters. Seventeens should also be able to write directions, and Adults are expected to be able to do these things and to write formal notes and talks for a community group. Detailed descriptions of the writing objectives and expected behaviors for each may be found in a separate brochure.*

---

* Norris, Eleanor L. (Ed.) Writing objectives. Ann Arbor, Michigan: Committee on Assessing the Progress of Education, 1969.

Once the objectives were developed and accepted by ECAPE, exercises were written to assess them.* After a rigorous review, again including subject matter experts, educators, and lay people, the exercises were organized into booklets for administration to students and to the young adult sample. By 1969, the developmental phases of the project were sufficiently advanced that data could be gathered in citizenship, science, and writing.

Gathering the Data

Data were collected from a total of approximately 88,000 individuals--approximately 24,000 9-year-olds, 28,000 13s, 28,000 17s, and approximately 8,600 Adults. Respondents were selected according to a nation-wide probability sampling plan.** Certain groups, such as out-of-school 17s, would have been too expensive to sample as heavily as their share of the population would warrant; the answers of respondents in such groups thus had to be more heavily weighted to yield results appropriate for the whole age level. All the percentages*** in this report are based on appropriately weighted figures and thus refer to the populations tapped by the samples.

Sampling and field operations were carried out by the Research Triangle Institute (RTI), under contract with National Assessment. Part of the field administration was subcontracted by RTI to the Measurement Research Center.

The science, writing, and citizenship exercises administered in the first year were divided into 10 packages (booklets) for age 9, 13 for age 13, 14 for age 17, and 10 for Adults. When each of the respondents at the three younger ages had completed his package, there were approximately 2,000 respondents for each package and thus 2,000 responses to each exercise. This number of responses allows moderately precise statements about the performance of all people at an age level, and somewhat less precise statements about the knowledge of people in such groups as those defined by geographical region, sex, and so forth. The number of young adults taking any given package ranged from about 650 to 900, again allowing statements of less precision.

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* For a detailed discussion of how objectives and exercises were prepared, see Finley, Carmen J. and Berdie, Frances S. The national assessment approach to exercise development. Ann Arbor, Michigan: National Assessment of Educational Progress, 1970

** Appendix B gives a technical discussion of the sampling plan.

*** Throughout this report, percentages are rounded to the nearest whole percent; percentages of less than one-half of one percent are reported as 0. Totals may add up to slightly less or slightly more than 100% because of these roundings.

More than 2,500 schools throughout the country cooperated in National Assessment, allowing project staff to administer exercises to the student sample. Young adults and out-of-school 17-year-olds were assessed in their homes.

Field operations began in March, 1969, with the 17-year-old in-school assessment. During the summer, Adults and out-of-school 17-year-olds were assessed. Finally, the 13- and 9-year-olds were assessed in the fall and winter of 1969-70.

A trained field staff conducted the entire administration. Most exercises had been prepared so they could be administered to groups. When the group packages were administered in school, instructions and exercises were presented by a tape-recorded voice as the students followed along in their packages. When a group package was administered to an out-of-school 17-year-old, instructions and exercises still were read aloud by the tape-recorded voice, even though only one respondent was involved. This procedure provided uniformity of administration throughout the country, and also helped people with reading problems to understand what was being asked of them. All adult packages were individual packages and were not administered via tape. Every effort was made to ensure the anonymity of all respondents. The results for students are not seen by anyone in their school; for Adults, they are only seen by the field representative. No names are written on packages.

Other exercises were prepared to be administered to one person at a time, and all these exercises were packaged together.

The individually administered packages were given by trained interviewers who read each exercise aloud and then recorded the response. This procedure was followed for the in-school and the out-of-school samples.

Types of Exercises, Scoring, and Reporting

The writing exercises fall into three types. One of these calls for a short answer or short essay. The answers are then coded into predetermined categories. For example, the following exercise was presented to Adults:

> Let us say that you are an officer in a local club, business association, or church group. One of your responsibilities is to invite people to speak to your organization at one of its regular meetings. Write a letter which offers such an invitation to the mayor of your town, your township committeeman, the manager of one of your local athletic teams, a prominent educator or businessman, or any other person whom you think would be appropriate.

The responses to this type of exercise were scored according to whether all information needed to communicate the intent of the message was included. If so, the response was scored "acceptable." This scoring was done by personnel at the Measurement Research Center, under contract to National Assessment. Specifications for responses considered acceptable were outlined, and these scoring directions will be given with the exercises in the report which follows.

A second type asks the respondent to indicate his answer by marking the appropriate space. All exercises of this type were written for Objective IV, Appreciate the Value of Writing. An example is:

> Other than for a school assignment, have you ever written any of the following?

A. Poem
   - Yes
   - No

B. Short story
   - Yes
   - No

C. Play
   - Yes
   - No

D. Article for a magazine
   - Yes
   - No

E. Story for a newspaper
   - Yes
   - No

F. Words for a song
   - Yes
   - No

The percentages of respondents saying "yes" and "no" to each subsection will be reported, as well as the percentage saying "yes" to one, two, three, and so on, subsections. It is assumed that writing any of these things indicates an interest in writing and appreciation of the value of writing. A weakness of this type of exercise is that the respondent asked to indicate whether he has done something may not tell the truth.

The third type of exercise asks the respondent to write about a given topic. The intent of such exercises was to provide information about the ability of groups of respondents to write creatively. For example, 13-year-olds received the following exercise:

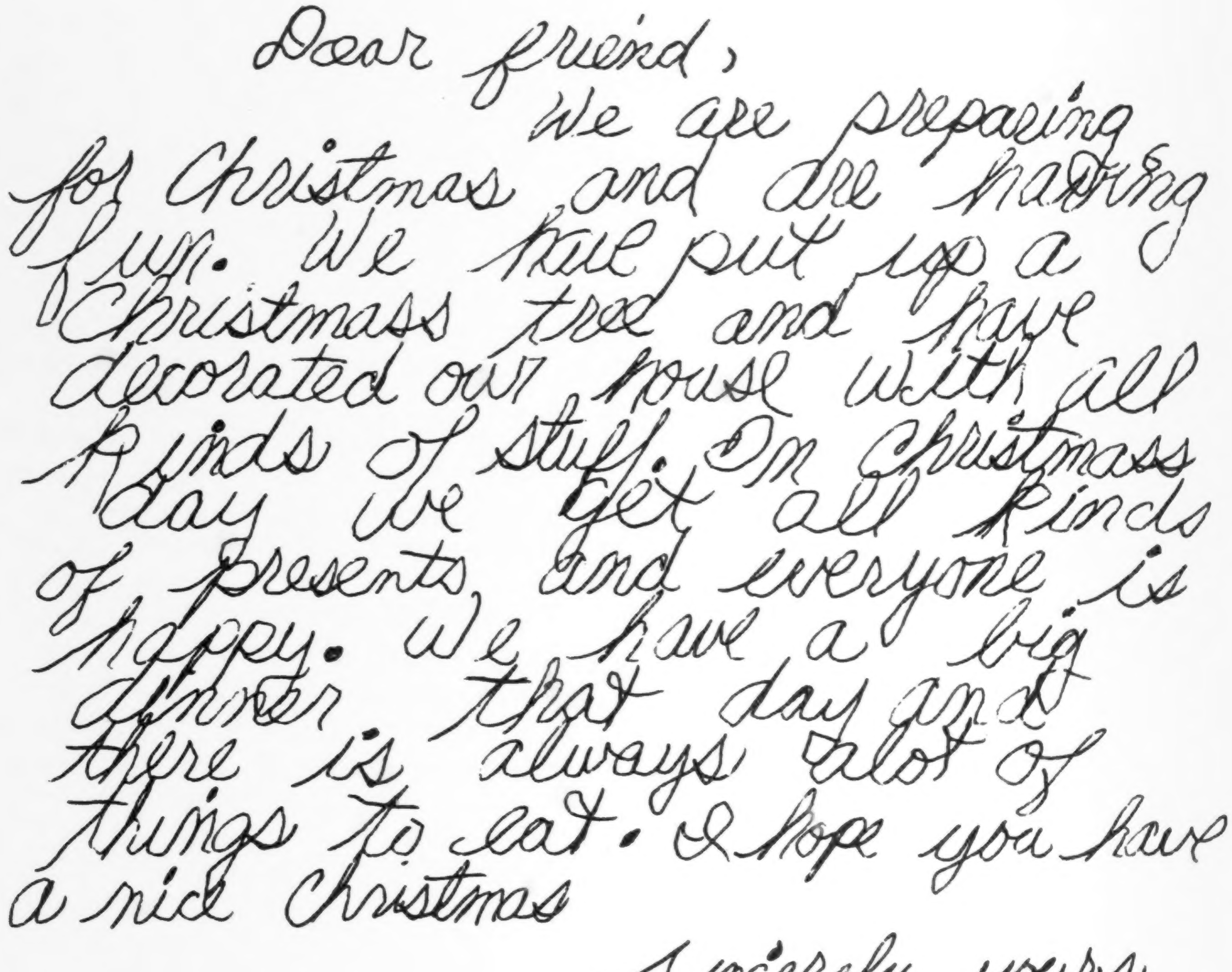
> Write a friendly letter to a "pen pal" in another country, telling him (or her) about your preparations for some holiday. Your letter should be as "newsy" as possible because your friend probably does not know how you do things where you live.

The responses were assessed for "writing ability" as a whole. Adequate grammar, appropriate word choice, originality, ability to express ideas, and depth of thought all contributed to this assessment.*

---

* More information about the procedures used for judging the essays is given in Appendix C.

Nine of the exercises to be reported for the area of writing were scored in this way. The results are reported in Chapter 3 by showing actual examples of essays demonstrating writing abilities reached by approximately 15%, 50%, and 85% of the respondents. For example, 50% of the 13-year-olds wrote an essay at least as good as the one below when presented with the "pen pal" exercise.



Dear friend,
We are preparing
for Christmas and are having
fun. We have put up a
Christmass tree and have
decorated our house with all
kinds of stuff. On Christmass
day we get all kinds
of presents and everyone is
happy. We have a big
dinner that day and
there is always alot of
things to eat. I hope you have
a nice Christmas
Sincerely yours,

Overlapping Tasks

In each of the three areas assessed in the first year, a number of exercises were administered at more than one age so that comparisons of performance between ages could be made. These are called overlapping exercises. In writing, some of the exercises given at more than one age level differed in wording, but asked the respondents to perform essentially the same task. For example, people at all four age levels were asked to fill out an application blank. The wording was slightly different for 9s, and the form asked for less information than that for the older ages. Since the task is basically the same, however, the percentage of respondents able to perform it acceptably is compared between ages. The results for 12 overlapping tasks are shown in Chapter 4.

2.

RESULTS FOR EACH AGE LEVEL

The percentage of respondents who were able to complete each writing task successfully is shown in the following pages, with the exception of the essay exercises, which are reported in Chapter 3. The exercises are grouped by age and by objective within each age. Within each objective they are ordered from the easiest to the most difficult.

Results for about half of the exercises are shown here. These are referred to as the "released" exercises. The other half of the exercises are not released so that they may be used when writing is assessed again, as is now scheduled for 1973-74. The released exercises were selected so that the results and content would be fairly representative of all the exercises. If an exercise was selected for release at one age level and overlapped at other ages, it was automatically released at the other ages. Consequently, it was not always possible to choose released exercises whose acceptable level covered the entire range from easy to difficult. Thus for age 13, Objective I, the three exercises that are released are all in the easier range (50% or more answered them acceptably), and three unreleased exercises fall in the harder range (fewer than 50% answered them acceptably).

Four figures have been drawn to illustrate the percentage of acceptable responses to the released and unreleased exercises, one for each age. For example, Figure 2-1 on page 11 shows for each objective the percentage acceptable for each exercise, released and unreleased, for age 9. Essay exercises do not receive an "acceptable" and "not acceptable" score, and thus cannot be shown on these figures.

NUMBER OF WRITING EXERCISES AT DIFFERENT LEVELS OF SUCCESS

AGE 9

Percent Acceptable	OBJECTIVE			
	I Social	II Business	III Scholastic	IV Appreciation
95-99				
90-94				●
85-89	●○			
80-84				
75-79				●
70-74				
65-69	○			
60-64	○			
55-59				○
50-54				
45-49				
40-44				
35-39	●			
30-34	●○			
25-29	●○			
20-24	○		●	
15-19	○	●		
10-14		●		
5-9				
0-4				
Essays			●●●○○○	

● Released

○ Not released

Each circle represents one exercise.

Figure 2-1

Age 9

Objective I. Write to Communicate Adequately in a Social Situation.

Four of the 11 exercises written for this objective were selected for release. As Figure 2-1 indicates, the released and unreleased results show a range from easy (exercises which from 65% to 94% completed successfully) to difficult (exercises which less than 34% completed successfully). The figure also shows that two exercises fall in the middle difficulty range (from 35% to 64%). The released exercises, Exercises 101 through 104, show that 88% of the 9-year-olds wrote an acceptable thank-you note, but the success level then dropped to 35% who wrote an acceptable invitation to a classroom play, 31% who included all the necessary information from a telephone conversation in a note, and 28% who included all the information required to address an envelope correctly. It appears that as the amount of specific information required for a response to be judged acceptable increased, the success rate of 9s declined.

#101. When asked to write a thank-you note to their grandmother for the birthday gift of a puppy, 88% of the 9s wrote a legible letter expressing their thanks for the gift, while 11% of the 9s did not write a letter which met all three requirements.

#102. Of the 9s, 35% wrote a letter of invitation to a play which included the necessary information of date, time, and place. While 83% wrote a letter and mentioned the play, slightly more than 60% included the date and time, and 48% included the place. Thus while 9s did give some of the required information, only about a third completed all the requirements for this task. A large proportion of the 9s provided information which would ordinarily be included in an invitation but which was not required for this task--75% included a greeting, 52% included the name of the sender (writer), and 33% included a closing.

#103. Nines listened to a recording of a telephone conversation between Mary and Billy, and were asked to write a note including certain bits of information which Mary gave to Billy. Parts of the information were included by 68% or more of the 9s, but only 31% of them included all the required bits of information.

#104. Nines were asked to address an envelope, given all the information which should be placed on a properly addressed envelope. Six bits of information were required for the task to be scored acceptable; 28% of the 9s did the task successfully. As with the first three exercises reported above, many 9s included some of the required information, but not all of it.

EXERCISE 101

(9:3-22)

Pretend that your grandmother gave you a puppy for your birthday. You named him Inky. Now write a thank-you letter to your grandmother.

(The rest of the page provided lines for the response.)

SCORING

Acceptable: The letter must fulfill all three of the following:

1) be in the form of a letter body (use forms of "I" and "you" rather than be a copy of the question), and
2) be legible and readable (be understood after one careful reading), and
3) include an indication of appreciation for the gift.

A greeting and a closing were not necessary for the work to be scored acceptable.

Not acceptable: Copying the question or omitting any of the above.

RESULTS

Age 9

88%	Acceptable
11	Not Acceptable
2	No response
101%	

Percentage of all responses which:[1]

94%	Gave a letter body
94	Were acceptably legible and readable
90	Included an indication of appreciation for the gift

Although not required for a response to be scored acceptable, the following information was frequently included by respondents:

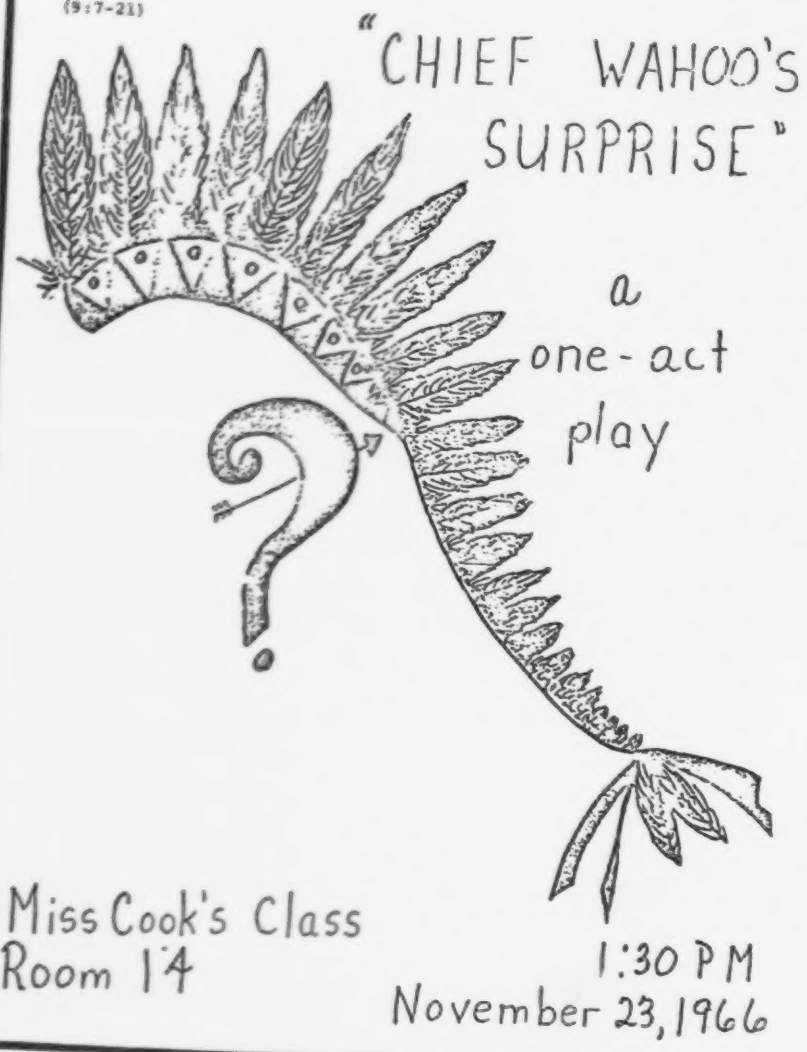
77%	An acceptable greeting
47	An acceptable closing

---

[1] Includes responses judged acceptable and those judged not acceptable.

EXERCISE 102

(9:7-21)



"CHIEF WAHOO'S SURPRISE"

a
one-act
play

Miss Cook's Class
Room 14

1:30 PM
November 23,1966

EXERCISE 102

(9:7-21)

Pretend that you are in Miss Cook's class. Your class is going to give a play called Chief Wahoo's Surprise. As you can see, this poster tells about the play.

Write a short letter inviting a favorite friend or relative to come to see your play. Be sure to put in all the information you think your friend or relative should know.

(Approximately 1/2 page of lined space was provided for the response.)

SCORING

Acceptable: The response must be a letter of invitation (include forms of the pronouns "I" and "you" and invite the person addressed to the play), mention that there is a play and give the date (November 23), the time (1:30) and the place (Miss Cook's class or Room 14).

Not acceptable: Omission of any of the above pieces of information or giving incorrect information.

RESULTS

Age 9

35	Acceptable
64	Not acceptable
1	No response
100%	

Percentage of responses to each piece of information:[1]

83%	letter of invitation
83	mention there is a play
61	date: November 23
63	time: 1:30
48	place: Miss Cook's class or Room 14

Although not required for a response to be scored acceptable, the following information was often given by respondents.

75%	A greeting
33	A closing
52	Name of sender

---

[1] Includes responses judged acceptable and those judged not acceptable.

EXERCISE 103

(9:5-18) (Similar to Exercises 203 and 301)

You are going to hear two people talking on the telephone. One is a girl named Mary Brown. The other is someone just about your age. His name is Billy. Pretend that YOU are Billy and LISTEN CAREFULLY to what Mary asks Billy to do. (Children then listened to the conversation reproduced below. It was not printed in the children's booklet.)

BILLY: Hello.

MARY: Hello, who is this?

BILLY: This is Billy.

MARY: Billy, this is Mary Brown. Is your sister there?

BILLY: No, she's at the store.

MARY: Will you give her a message for me?

BILLY: Sure, I guess so. What is it?

MARY: This is pretty important, Billy. Can you get some pencil and paper and write it down?

BILLY: O.K. Wait a minute. pause I'm ready now. Go ahead.

MARY: Tell your sister that I'll meet her at Jane's house at 6 o'clock tonight. Got it?

BILLY: No, don't go so fast. Say it again.

MARY: Tell her to meet Mary Brown at Jane's house at 6 o'clock tonight. Got it now?

BILLY: I think so, let me see. Meet Mary Brown at Jane's house at 6 o'clock tonight.

MARY: That's right, Billy, don't forget now. Goodbye.

Mary asked Billy to write a note, didn't she? Now, you will hear them again. Pretend that you are Billy again. Listen carefully, and this time try to write the note that Mary asks Billy to write.

(Approximately 1/2 page of lined space was provided for the response.)

EXERCISE 103
(continued)

(9:5-18)

SCORING

Acceptable: The response must

1) be a note that states:

   a. meet Mary or meet Mary Brown
   b. where: Jane's house
   c. time: 6:00
   d. day: tonight

Not acceptable: Omission or error in any of the above pieces of information, or failure to write a note. Copying the instructions or stating, for example, "Tell your sister to meet Mary..." was not in note form and therefore unacceptable.

RESULTS

Age 9

31%	Acceptable
66	Not acceptable
3	No response
100%	

Percentage including each piece of information:[1]

70%	meet Mary or meet Mary Brown
70	where: Jane's house
83	time: 6:00
68	day: tonight

---

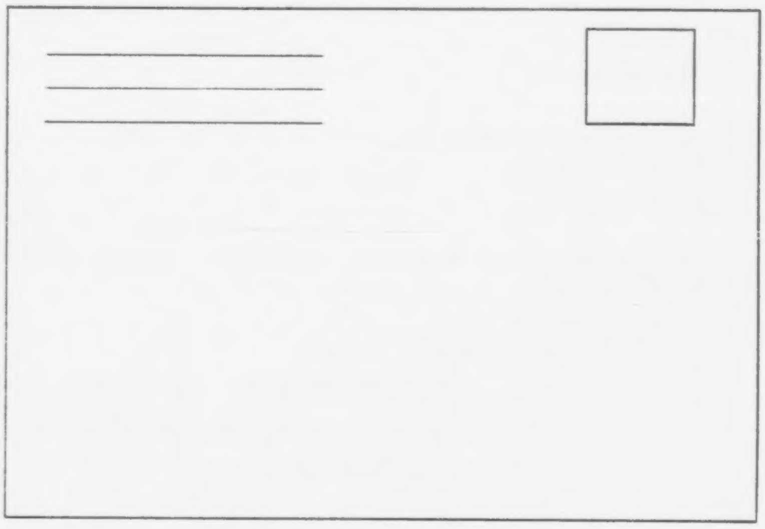
[1] Includes responses judged acceptable and those judged not acceptable.

EXERCISE 104

(9:2-21) (Overlaps Exercise 202)

Mary Smith lives at 100 Main Street in Hopson, Ohio. The zip code for Hopson is 45601. Mary's grandmother lives at 475 Cactus Lane in Sunshine, Arizona. Her name is Mrs. Robert Smith, and her zip code is 86001.

Pretend that Mary wants to send a letter to her grandmother. How should she address the envelope? Fill out the envelope below the way Mary should. Make sure you write down everything that should go on the envelope.



EXERCISE 104
(continued)

(9:2-21)

SCORING

Acceptable: All envelope parts had to be written in the proper places. The zip code was not required, but had to be correct if written.

Not acceptable: Any errors or blank spaces on the envelope.

RESULTS

Age 9

28%	Acceptable
69	Not acceptable
3	No response
100%	

Percentage placing each piece of information correctly:[1]

52%	Mary Smith
43	100 Main Street
37	Hopson, Ohio
51	Mrs. Robert Smith
42	475 Cactus Lane
39	Sunshine, Arizona

---

[1] Includes responses judged acceptable and those judged not acceptable.

Age 9

Objective II. Write to Communicate Adequately in a Business or Vocational Situation.

Two exercises fall under this objective, and both are released. Each asked 9s to complete an application blank. In one exercise (105), 9s were to put the last name first; in the other (106), they were to put the first name first.

#105, 106. Nines were told to use the name Adam Baker Carson (for boys) or Alice Baker Carson (for girls). This instruction was given in order to avoid breaking the National Assessment rule of anonymity--the child's own name is never to appear on or in the booklet of exercises. Nevertheless, many children did use their own name instead of the one given. The scoring procedures established, however, required that Adam (Alice) Baker Carson be used in order for the task to be considered acceptable. It may be because of this scoring method that only 16% of the children were judged to complete one of the application blanks correctly (last name first), and 12% the other (first name first). Separate information was scored on whether children filled in the name blanks in the correct order. This piece of information was scored regardless of what name was used--Adam (or Alice) Baker Carson or some other name. Exercises 105 and 106 show that 70% and 82%, respectively, of the children put the parts of the name in the correct order. The success rates on these two exercises might have been much higher had scoring allowed children to use their own name or any name other than Adam (Alice) Baker Carson.

EXERCISE 105

(9:4-18) (Similar to Exercises 106, 206, 304, and 404)

Fill in the blanks below. Do not use your own name. Each boy should call himself Adam Baker Carson. Each girl should call herself Alice Baker Carson. You may make up the rest of the information.

NAME: ______________________________
last first middle initial

ADDRESS: ______________________________
number street city or town state

ZIP CODE: ______________

DATE OF BIRTH: ______________________________
month day year

TODAY'S DATE: ______________________

SCORING

Acceptable: Every blank filled in with appropriate information. For specific blanks, the following information was required:

1) state-one of the fifty states
2) zip code-5 digit number
3) birthday-a month or a number from 1 to 12, day, and year
4) date-month, day, and year (if a day of the week was included, the line was considered acceptable).

Not acceptable: Error in part of the application (such as writing a day of the week in the "date of birth" blank), or failing to fill in a blank.

EXERCISE 105
(continued)

(9:4-18)

RESULTS

Age 9

16%	Acceptable
82	Not acceptable
2	No response
100%	

Percentage completing each blank, whether they completed all or not:

28%	correct name
70	correct order of parts of name
76	number and street or rural route
74	city or town
71	state
73	zip code
52	birthday (month, day, and year)
60	correct order of birthday
68	today's date (month, day, and year)

---

[1] Includes responses judged acceptable and those judged not acceptable.

EXERCISE 106

(9:7-19) (Similar to Exercises 105, 206, 304, and 404)

Fill in the lines below. Do not use your own name here. Each boy should call himself Adam Baker Carson. Each girl should call herself Alice Baker Carson. You may make up the rest of the information.

1. ______________________________
first name middle initial last name
2. ______________________________
street address
3. ______________________________
city or town state zip code
4. DATE OF BIRTH: ______________________
month day year

TODAY'S DATE: ______________________

SCORING

Acceptable: Every blank filled in with appropriate information. For specific blanks, the following information was required:

1) state-one of the fifty states
2) zip code-5 digit number
3) birthday-a month or a number from 1 to 12, day and year
4) date-month, day, and year (if a day of the week was included, the line was considered acceptable)

Not acceptable: Error in part of the application (such as writing a day of the week in the "date of birth" blank), or failing to fill in a blank.

EXERCISE 106
(continued)

(9:7-19)

RESULTS

Age 9

12%	Acceptable
87	Not acceptable
2	No response
101%	

Percentage completing each blank:[1]

19%	correct name
82	correct order for name parts
76	number and street
71	city or town
71	state
67	zip code
54	birthday
55	birthday in correct order
68	today's date

---

[1] Includes responses judged acceptable and those judged not acceptable.

Age 9

Objective III. Write to Communicate Adequately in a Scholastic Situation.

Seven exercises were written for this objective, four of which are released. All but one of these were scored for overall writing ability, and three of them are reported in Chapter 3.

#107. When asked to write an announcement about a pet show for the school newspaper, 21% of the 9s wrote announcements which included all the required information. Of all the respondents, 73% mentioned the pet show, but less than half the 9s included the other bits of information required.

EXERCISE 107

(9:4-17)

Pretend that your class is going to have a pet show in the school parking lot at nine o'clock on May 10, 1970.

Write an announcement about the pet show. The announcement will be printed in the school newspaper. It is an important announcement because you want people to come to the show. Be sure to put in everything that you think is important.

(Approximately 1/2 page of lined space was provided for the response.)

SCORING

Acceptable: The announcement must include the following pieces of information:

1) the fact that there is a pet show
2) place
3) time
4) date

Not acceptable: Omission of any of the above pieces of information, or giving incorrect information.

RESULTS

Age 9

21%	Acceptable
76	Not acceptable
4	No response
101%	

Percentage of respondents doing each of the following, whether they did all or not:[1]

73%	Mentioned pet show
25	Named the place: school parking lot
40	Gave the time: nine o'clock
49	Gave the date: May 10

---

[1] Includes responses judged acceptable and those judged not acceptable.

Age 9

Objective IV. Appreciate the Value of Writing.

Two of the three exercises given under this objective are released. Both asked the respondents to indicate whether they had done certain writing tasks.

#108. When asked to mark any of a number of given writing activities they had performed just for fun, 93% indicated they had written one or more of them, while 7% did not indicate writing any of them. Writing a joke was marked by 41%; a poem by 18%; a report by 17%; a story by 23%; and some other type of writing by 5%.

#109. Nines were asked whether they had taken any trips away from home during the past 12 months and, if so, if they performed any of seven writing activities. Seventy-three percent said they had taken a trip, and of these, 78% indicated they had performed one or more writing activities: 23% said they had sent a postcard; 25% said they had written a letter telling about the trip after they got home; 17% said they had written a letter while on the trip; 7% said they had kept a diary while on the trip; 27% said they had made notes about some of the things they saw; 30% said they had written a thank-you note to someone they had visited; and 20% said they had written a report about a trip after they got home. Of those who said they had taken a trip and also completed the remainder of the exercise, 22% indicated they had not done any of the writing activities.

EXERCISE 108

(9:2-20) (Similar to Exercises 209 and 307)

Mark any of these things that you have written outside school just for fun.

Age 9

41%	Joke
18	Poem
17	Report
23	Story
5	Other (explain on the lines below)

(Three lines were provided for additional responses.)

Percentage who stated they had written:

93%	1 or more of the items listed
6	2 or more of the items listed
3	3 or more of the items listed
1	4 or more of the items listed
0	All 5 of the items listed
7%	0 of the items listed

EXERCISE 109*

(9:10-21) (Overlaps Exercises 208 and 407)

Age 9 A. During the last 12 months, did you take any trips away from home?

73%	Yes (Go to B)
27	No (Go to next exercise)

B. (If "Yes" to A) Did you

	1. send a post card while on a trip?
23	yes
50	no
	2. write a letter telling about a trip after you got home?
25	yes
48	no
	3. write a letter while on a trip?
17	yes
56	no
	4. keep a diary while on a trip?
7	yes
65	no
	5. make notes about some of the things you saw?
27	yes
46	no
	6. write a thank-you note to someone you visited?
30	yes
43	no
	7. write a report about a trip after you got home?
20	yes
53	no

Of those who said "Yes" to A, the percentage who included:

78%	1 or more pieces of information
58	2 or more pieces of information
36	3 or more pieces of information
19	4 or more pieces of information
9	5 or more pieces of information
4	6 or more pieces of information
1	All 7 pieces of information
22%	0 (said "No" to each part of B)

*This exercise was typed double space in the respondent's package.

Age 13

Objective I. Write to Communicate Adequately in a Social Situation.

Seven exercises were used for this objective. One was an essay and is reported in Chapter 3. The other six range widely in difficulty, as shown in Figure 2-2. The three discussed here all fall in the easy group: 91% wrote an acceptable invitation to a friend to visit; 78% addressed an envelope correctly using given information; and 67% wrote an acceptable note based on a telephone conversation which they listened to. The three unreleased exercises were similar in the tasks to be performed--convey a message from a phone conversation (two exercises), and address an envelope--but proved to be more difficult.

#201. The task was to write a letter inviting a friend, Ozzie to visit for a week. To be acceptable, the invitation had to be a letter, directed to Ozzie, and include an invitation; 91% of the 13s wrote a letter which met all the qualifications.

#202. Using information given them, 13s were to address an envelope; 78% did so correctly, while 19% omitted some or all of the information.

#203. Youngsters listened to a tape-recorded telephone conversation between Al and Ben, and were instructed to write the note that Ben would have had to write, including three pieces of information; 67% did so correctly. More than 80% included at least one of the three pieces of information.

NUMBER OF WRITING EXERCISES AT DIFFERENT LEVELS OF SUCCESS

AGE 13

Percent Acceptable	OBJECTIVE			
	I Social	II Business	III Scholastic	IV Appreciation
95-99				
90-94	●			
85-89				●●●○
80-84				
75-79	●	○		○
70-74				
65-69	●			
60-64				●○
55-59				○
50-54	○			
45-49	○	●		
40-44				
35-39				
30-34				
25-29		●●		
20-24				
15-19	○			●○
10-14		○		
5-9				
0-4				
Essays	●		●●○○	

● Released

○ Not released

Each circle represents one exercise

Figure 2-2

EXERCISE 201

(13:8-19)

About three months ago, Leo Logan moved from the city to the country. His father bought a farm, and now Leo's address is Rebel Road, Rural Delivery No. 1, Harris, Nebraska 69000.

Leo likes the country, but he misses his old friend Ozzie Drake. Leo's mother says, "Why don't you write to Ozzie and invite him to visit us for a week this summer?"

Write Leo's letter of invitation to Ozzie.

(Approximately 1-1/2 pages of lined space were provided for the response.)

SCORING

Acceptable: The response must:

1) be a letter, and
2) be written to Ozzie, and
3) include an invitation for a visit.

Not acceptable: Omitting any of the above pieces of information.

RESULTS

Age 13

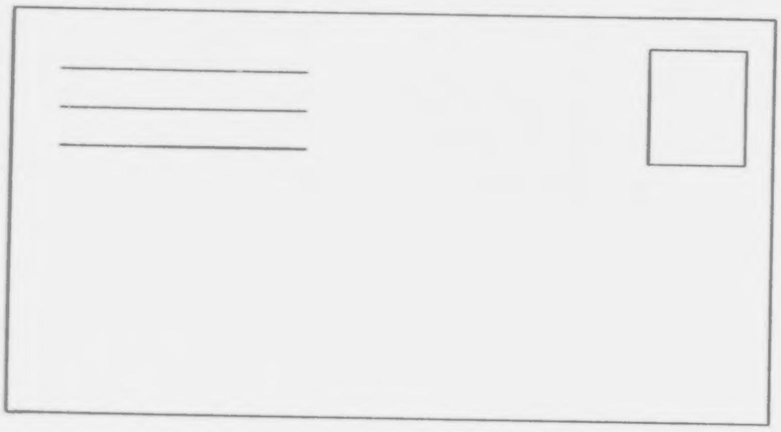
91%	Acceptable
6	Not acceptable
3	No response
100%	

EXERCISE 202

(13:9-19) (Overlaps Exercise 104)

Mary Smith lives at 100 Main Street in Hopson, Ohio. The zip code for Hopson is 45000. Mary's grandmother lives at 475 Cactus Lane in Sunshine, Arizona. Her name is Mrs. Robert Smith, and her zip code is 86001.

Pretend that Mary wants to send a letter to her grandmother. How should she address the envelope? Fill out the envelope below the way Mary should. Make sure you write down everything that should go on the envelope.



EXERCISE 202
(continued)

(13:9-19)

SCORING

Acceptable: All envelope parts had to be written in the proper places. The zip code was not required, but had to be correct if written.

Not acceptable: Any errors or blank spaces on the envelope.

RESULTS

Age 13

78%	Acceptable
19	Not acceptable
3	No response
100%	

Percentage placing each piece of information correctly:[1]

89%	Mary Smith
85	100 Main Street
83	Hopson, Ohio
90	Mrs. Robert Smith
87	475 Cactus Lane
85	Sunshine, Arizona

---

[1] Includes responses judged acceptable and those judged not acceptable.

EXERCISE 203

(13:8-17) (Similar to Exercises 103 and 301)

You are going to hear a telephone conversation between two boys, Al and Ben. During the conversation, you will discover that Ben is going to have to write a note to his mother. Listen carefully to find out the things that Ben will have to say in his note. (Children then listened to the conversation reproduced below. It was not printed in the children's booklet.)

AL: Hey, Ben, this is Al. I called you to remind you you're supposed to come down to my house for supper tonight before the game.

BEN: Oh yeah, I remember. Your mother and father are going to pick me up on the way back from the barber shop. What time do you think you'll get here?

AL: Oh, around 5 o'clock.

BEN: O.K. I'd better leave a note for my mother. She won't be home until 5:30 and maybe she's forgotten that I won't be eating at home.

AL: You'd better remind her of the ball game, too. She's supposed to pick us up afterwards, isn't she?

BEN: That's right. Your father is taking us to the game but my mother is bringing us home. Thanks for reminding me. I'll write the note right away.

You will now have another chance to hear the conversation between Al and Ben. Listen to it carefully again and then, when the boys have finished talking, write the note that you think Ben should leave for his mother.

(Approximately 1/2 page of lined space was provided for the response.)

SCORING

Acceptable: The response must:

1. be in the form of a note that states
    - a. he is going to Al's house for dinner, and
    - b. Al's father is taking them to the ball game (or the reader must be able to infer this information), and
    - c. his (Ben's) mother should pick them up after the game.

Not acceptable: Omission or error in any of the above pieces of information, or copying the instructions.

EXERCISE 203
(continued)

(13:8-17)

RESULTS

Age 13

67%	Acceptable
32	Not acceptable
1	No response
100%	

Percentage providing each piece of information:[1]

84%	mention that he is going to Al's house for dinner
81	mention or infer that Al's father is taking them to the ball game
84	mention that his (Ben's) mother should pick them up after the game

---

[1] Includes responses judged acceptable and those judged not acceptable.

Age 13

Objective II. Write to Communicate Adequately in a Business or Vocational Situation.

Only one of the five exercises under this objective proved to be easy (75% completed it acceptably), one fell in the middle difficulty range, and the other three were difficult, (see Figure 2-2 on page23). On the three released exercises, less than half included all the information necessary to order a product (46%), 27% wrote an acceptable invitation to the mayor to speak to their class, and 26% filled in an application blank with all the appropriate information required.

#204. Thirteens were given all the information necessary to order a pair of sea horses. The product was mentioned by 88%, but only 49% included the place to send the sea horses. Both pieces of information were required to complete this task successfully, and 46% provided them.

#205. Thirteens were asked to write an invitation to the mayor to speak to a seventh-grade class about his work. The invitation had to include four bits of information in order to be judged acceptable. This task was completed successfully by 27% of the 13s, although 93% did include an invitation in their letter, 88% included a suggested topic for the mayor's speech, and 74% included the name of the inviting school. Only 33% mentioned a date for the mayor to come. Nearly 50% included some information about the class, although this was not necessary for the invitation to be judged acceptable.

#206. Thirteens were asked to fill in an application blank. In order to be judged acceptable, all blanks had to be filled in with appropriate information; 26% of the 13s did so. The percentages who filled in each part of the application blank are considerably higher, however. As discussed in relation to a similar exercise given to 9s, respondents were instructed to use the name Adam (or Alice) Baker Carson, rather than their own name. Of the 13s, 56% filled in the name blank correctly; 97% filled in the correct order of name. The higher figure for the second blank indicates that many students used some name other than Adam (Alice) Baker Carson. The results for Exercise 206 show that each part of the application blank was filled out by 56% to 97% of the 13s, even though only about a quarter of them filled out all blanks successfully.

EXERCISE 204 *

(13:7-18) (Overlaps Exercises 305 and 405)

Looking for a special gift
for that SPECIAL someone?

We can provide you with a pair of fascinating sea horses for less than you will pay elsewhere. Send only $3. We guarantee a live delivery and include free food and instructions.

Gulf Suppliers, Inc., Box 79,
Seaside, Florida 33000

Someone who lives at 320 Random Road in Port Huron, Michigan 48121, has decided to buy a pair of sea horses.
Write a letter that he (or she) can send to order them.

(Approximately one page of lined space was provided for the response.)

SCORING

Acceptable: The letter must include the following:

1) the product wanted, and
2) the sender's address.

Mentioning that money was enclosed was not necessary for acceptability.

Not acceptable: Omission or error in either of the above pieces of information.

*This exercise is presented here as it was given at ages 13 and 17. See Exercise 405 for minor differences in its presentation at the Adult level.

EXERCISE 204
(continued)

(13:7-18)

RESULTS

Age 13	
46%	Acceptable
52	Not acceptable
2	No response
100%	

Percentage providing each piece of information:[1]

88%	mentions product being ordered
49	mentions the place to send them

Although not required for a response to be judged acceptable, this information was frequently included by respondents.

62%	mentions that money is enclosed

---

[1] Includes responses judged acceptable and those judged not acceptable.

EXERCISE 205

(13:5-19) (Similar to Exercise 403)

The seventh-grade history classes at Saluki Junior High School in Saluki, Idaho, are studying how their local government works. The students have become so interested that they have decided to invite Mr. Carmen J. Hatch, the Mayor of Saluki, to talk to them about his job.

Chris Cantor, president of the seventh grade, has the job of inviting all guest speakers to the school. Write Chris's letter of invitation to Mayor Hatch.

(Approximately 1-1/2 lined pages were provided for the response.)

SCORING

Acceptable: The letter must:

1) invite the mayor to speak to the class, and
2) suggest a topic (how local government works or about his job), and
3) give the name of the school, and
4) ask for a date or tell the mayor the date they would like for him to come. "At your convenience" is acceptable.

Not acceptable: Failure to include any of the above information.

RESULTS

Age 13	
27%	Acceptable
71	Not acceptable
1	No response
99%	

EXERCISE 205
(continued)

(13:5-19)

Age 13	Percentage including the following pieces of information:[1]
93%	invites mayor to speak to the class
88	suggests topic
74	gives name of school - Saluki Junior High
33	asks for date or tells date they would like for him to come

Although not required for a response to be scored acceptable, this information was often included by respondents:

46%	gives information about the class - 7th grade and history

---

[1] Includes responses judged acceptable and those judged not acceptable.

EXERCISE 206*

(13:11-22) (Overlaps Exercises 304 and 404, Similar to Exercises 105 & 106)

Below is a sample application blank. Ones like it are used to get information from people who are applying for driving licenses, credit cards, passports, and other identification cards. Please print the information requested.

Do not use your own name. For this application blank, each boy should call himself Adam Baker Carson. Each girl should call herself Alice Baker Carson. You may make up the rest of the information.

1. ______________________________
last name first middle initial

2. ______________________________
street address

3. ______________________________
city or town county state zip code

4. DATE OF BIRTH: ________________ 5. SEX: ________
month day year M or F

6. HT: ______ WT: ______ HAIR: ______ EYES: ______

TODAY'S DATE: ______________________

SCORING

Acceptable: Every blank filled in with appropriate information. Acceptable responses for specific pieces of information required that:

1) the state must be one of the 50 states, and
2) the zip code must be a 5 digit number, and
3) the birthday must include a month or a number from 1 to 12.

The first three lines of the application blank must be printed. There was a liberal acceptance of "funny" responses such as height-2 feet; weight-400 pounds; hair-green.

Not acceptable: Error or omission in any blank of the application.

*This exercise is presented here as it was given at age 13. See Exercise 304 and Exercise 404 for minor differences in its presentation at age 17 and Adult.

EXERCISE 206
(continued)

(13:11-22)

RESULTS

Age 13

26%	Acceptable
72	Not acceptable
1	No response
99%	

Percentage completing each blank:[1]

56%	correct name
97	correct order of name
95	number and street or rural route
95	city or town
67	county
92	state
88	zip code
93	birthday (month, day, and year)
93	birthday in correct order
88	sex, height, weight, color of hair, color of eyes
93	today's date (month, day, and year)
62	printed, not written

---

[1] Includes responses judged acceptable and those judged not acceptable.

Age 13

Objective III. Write to Communicate Adequately in a Scholastic Situation.

The four exercises written for this objective were all essay types. Two of them are released, and one is discussed in Chapter 3, the other in Chapter 4.

Age 13

Objective IV. Appreciate the Value of Writing.

Results for the 10 exercises written for this objective range from difficult to easy, as shown in Figure 2-2, page 23, with the results for most of them falling above 50%. The released exercises suggest some awareness of the need for writing as a skill, and indicate that at least sometimes respondents write for fun outside of school.

#207. When asked if they thought there are any jobs that required a lot of writing, 89% of the 13s said "yes" and gave an acceptable example.

#208. Thirteens were asked if they had taken a trip during the past 12 months and, if so, if they had written any of a list of seven things. Of those who said they had taken a trip, 88% indicated they had performed one or more writing tasks: 42% said they had sent a postcard; 39% said they had written a letter after they got home; 37% said they had written a letter while on a trip; 10% said they had kept a diary while on a trip; 32% said they had made notes about some of the things they saw; 36% said they had written a thank-you note to someone they had visited; and 27% said they had written a report about the trip after they got home. Of those who said they had taken a trip, 12% indicated they had done none of these writing tasks.

#209. Asked if they had written something outside of school, 87% indicated they had written at least one thing: 58% said "yes" when asked if they had ever written a short story; 50% said "yes" when asked if they had ever written words for a song; and 47% said "yes" when asked if they had ever written a poem. Other types of writing asked about were a play (26% said they had written this); an article for a magazine (10%); and a story for a newspaper (11%). Of all 13s, 13% indicated they had not written any of these.

#210. Asked if they had left a written message for someone during the past 12 months, 61% said "yes."

#211. Of all 13s, 17% said "yes" when asked if they had ever sent a story, poem, joke, or drawing to a magazine or newspaper that wasn't connected with their school.

EXERCISE 207

(13:9-16)

A. Do you think that there are any jobs that require a lot of writing?

Yes

No

B. If you answered yes, list some of those jobs.

(Six lines were provided for the response.)

SCORING

Acceptable: The response must include one job that might under some condition require a lot of writing. If several jobs were listed, only one acceptable job was necessary in order to be considered an acceptable response.

Not acceptable: Giving only one job which does not require a lot of writing, or listing a place, such as "at a hospital" or "in an office."

RESULTS

Age 13	
89%	Said yes and gave an acceptable example
3	Said yes and gave a not acceptable example
8	No response (Includes those who responded no to A)
100%	

EXERCISE 208*

(13:12-18) (Overlaps Exercise 109 and Exercise 407)

Age 13 A. During the last 12 months, did you take any trips away from home?

87%	Yes (Go to B)
13	No (Go to next exercise)

B. (If "Yes" to A) Did you

1. send a postcard while on a trip?

42	Yes
46	No

2. write a letter telling about a trip after you got home?

39	Yes
48	No

3. write a letter while on a trip?

37	Yes
50	No

4. keep a diary while on a trip?

10	Yes
77	No

5. make notes about some of the things you saw?

32	Yes
55	No

6. write a thank-you note to someone you visited?

36	Yes
51	No

7. write a report about a trip after you got home?

27	Yes
60	No

Percentage who responded to Part B and said "Yes" to:

88%	1 or more questions
70	2 or more questions
50	3 or more questions
28	4 or more questions
12	5 or more questions
4	6 or more questions
1	7 or more questions
12%	0 questions

---

*This exercise was double-spaced in the respondent's package.

EXERCISE 209

(13:12-16) (Overlaps Exercise 307, Similar to Exercise 108)

Other than for a school assignment, have you ever written any of the following:

Age 13

A. Poem

47%	Yes
53	No

B. Short Story

58	Yes
42	No

C. Play

26	Yes
74	No

D. Article for a magazine

10	Yes
89	No

E. Story for a newspaper

11	Yes
88	No

F. Words for a song

50	Yes
50	No

Percentage who stated they had written:

87%	1 or more of the items listed
66	2 or more of the items listed
35	3 or more of the items listed
12	4 or more of the items listed
3	5 or more of the items listed
0	6 or more of the items listed
13%	0 of the items listed

EXERCISE 210

(13:11-1) (Overlaps Exercises 306 and 406)

A. During the last 12 months, did you leave a written message for some person?

Age 13	
61%	Yes (Go to B)
39	No (Go to next exercise)
0	No response
100%	

B. (If "Yes" to A) About how many times?* ________

---

*This information was asked as a check on part A, but is not reported.

EXERCISE 211

(13:13-5)

Have you ever sent in a story, poem, joke, or drawing to a magazine or newspaper that wasn't connected with your school?

RESULTS

Age 13	
17%	Yes
83	No
100%	

Age 17

Objective I. Write to Communicate Adequately in a Social Situation.

Three of four exercises under this objective are released. At least 50% responded acceptably to all four, as Figure 2-3 shows. The released exercises show that 79% of the seventeens wrote an acceptable note based on a telephone conversation, 75% wrote acceptable instructions for making or doing something, and more than 50% wrote a description of an automobile accident in an acceptable manner.

#301. Seventeens listened to a telephone conversation between Peggy and Carol, and then wrote the note that Carol would have had to write. The note had to include three pieces of information to be judged acceptable; 79% of the 17-year-olds performed this task successfully.

#302. When asked to write the steps for making or doing something, a total of 75% gave acceptable responses in that they mentioned all the steps; 58% gave acceptable responses which also included the specific information necessary for the reader to do the job correctly. Unacceptable responses were given by 22%.

#303. Seventeens were given a diagram of an accident involving two cars. They were told to study the diagram and then describe the accident in their own words. Four pieces of information had to be included for the description to be judged acceptable; 53% of the 17s completed this successfully.

NUMBER OF WRITING EXERCISES AT DIFFERENT LEVELS OF SUCCESS

AGE 17

Percent Acceptable	OBJECTIVE			
	I Social	II Business	III Scholastic	IV Appreciation
95-99				
90-94				
85-89				●○○
80-84				●
75-79	●●			○
70-74				
65-69		○○		
60-64		●		
55-59		●		
50-54	●○			●
45-49				
40-44				
35-39				
30-34				
25-29				
20-24				
15-19				○
10-14				
5-9				
0-4				
Essays			●●○○	

● Released

○ Not released

Each circle represents one exercise.

Figure 2-3

EXERCISE 301

(17:10-19)(Similar to Exercises 103 and 203)

You are going to hear a telephone conversation between two girls, Peggy and Carol. During the conversation, you will discover that Carol is going to have to write a note to her mother. Listen carefully to find out the things that Carol will have to say in her note. (Youngsters then listened to the conversation reproduced below. It was not printed in their booklet.)

CAROL: Hello.

PEGGY: Hello, Carol. This is Peggy. I called to remind you that you are supposed to come to my house for supper tonight before the rehearsal.

CAROL: Yes, I remember. You and your mother are going to pick me up on your way back from the store. What time do you think you'll get here?

PEGGY: Oh, about 5, I guess.

CAROL: Then I'd better leave a note for my mother. She won't be home until 5:30 and she may have forgotten I won't be eating at home.

PEGGY: You'd better remind her about the rehearsal, too. She's supposed to pick us up afterwards, isn't she?

CAROL: That's right. Your mother is taking us to the rehearsal but my mother is supposed to bring us home. Thanks for reminding me. I'll write a note right away.

You will now have another chance to hear the conversation between Peggy and Carol. Listen to it carefully again and then, when the girls have finished talking, write the note that you think Carol should leave for her mother.

(Approximately 1/2 page of lined space was provided for the response.)

SCORING

Acceptable: The response must:

1) be a note that states that

   a. she (Carol) is going to Peggy's house for dinner, and
   b. Peggy's mother is taking them to the rehearsal (or the reader must be able to infer this information), and
   c. her (Carol's) mother should pick them up after the rehearsal.

Not acceptable: Omission of any of the above pieces of information.

EXERCISE 301
(continued)

(17:10-19)

RESULTS

Age 17

78% Acceptable
16 Not acceptable
1 No response
100%

Percentage providing each piece of information:[1]

[illegible] that Carol is going to Peggy's house for dinner
[illegible] that Peggy's mother is taking them to the rehearsal
[illegible] that Carol's mother should pick them up after rehearsal

---

[1] Includes responses judged acceptable and those judged not acceptable.

EXERCISE 302*

(17:8-21) (Overlaps Exercise 401)

When we make or do something, we usually follow certain procedures. There are certain steps to follow in baking bread, tarring a roof, cutting a pattern, painting a house, repairing a car, developing film, changing a tire, and other such activities. Choose something that you know how to make or do. Describe from the beginning the steps that you follow in order to make it or do it. Make the directions as simple and clear as possible. Someone who is not familiar with the process that you are describing should be able to understand and follow your directions.

(Approximately 1-1/4 pages of lined space were provided for the response.)

SCORING

Acceptable: The response must include all steps needed to follow the procedure. Acceptable responses were scored in one of two categories:

1) acceptable and specific: The respondent lists all important steps with specific information that would enable the reader to do the job correctly.

2) acceptable but not specific: The respondent mentions all the important steps, but does not give enough detail so that a reader would be able to do the job correctly. For example, a recipe is given, but there is no mention of how much of one or more ingredients.

Not acceptable: Omitting a step necessary for the procedure, or not giving enough information for the reader to follow the procedure. For example, a description is given of how to change a tire, but it isn't stated that the emergency brake should be pulled or that the car should be put in park; or the procedure for cutting a pattern states only, "follow the directions."

RESULTS

Age 17

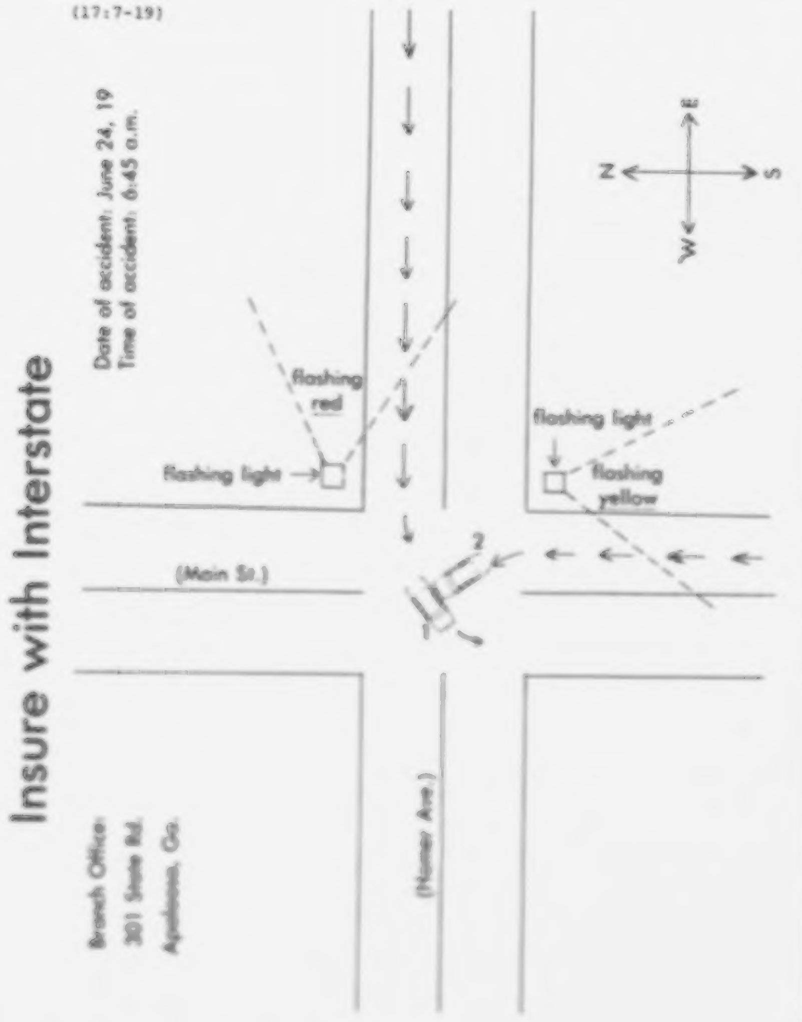
58% Acceptable and specific
17 Acceptable but not specific
75% Total acceptable

22% Not acceptable
4 No response
101%

*This exercise is presented here as it was given at age 17. See Exercise 401 for minor differences in its presentation at the Adult level.

EXERCISE 303

(17:7-19)


Insure with Interstate
Date of accident: June 24, 19
Time of accident: 6:45 a.m.
Branch Office:
301 State Rd.
Apalosa, Ga.
flashing red
flashing light
flashing light
flashing yellow
(Main St.)
(Homer Ave.)
N
S
E
W
1
2

EXERCISE 303*

(17:7-19) (Overlaps Exercise 402)

Here is a diagram of an automobile accident. Study the diagram for a while and then describe the accident in your own words.

(Approximately 1-1/2 lined pages were provided for the response.)

SCORING

Acceptable: The description must mention four of the following:

1) name of the street for each car
2) direction each car was traveling
3) which traffic light each one had
4) the fact that each was turning
5) the fact that a collision occurred

Not acceptable: If the description contained a mistake, for instance, that car #1 had a yellow light or that car #2 was turning right, it was automatically counted unacceptable, no matter how good the rest of the description was.

RESULTS

Age 17

[illegible]	Acceptable
[illegible]	Not acceptable
1	No response
[illegible]	

---

*This exercise is presented here as it was given at age 17. The exercise had few minor differences in its presentation at the adult level.

Age 17

Objective II. Write to Communicate Adequately in a Business or Vocational Situation.

Two of four exercises for Objective II are reported. All four were completed successfully by 55% or more of the respondents, as Figure 2-3 (page 35) shows.

#304. Respondents were asked to fill out all the blanks of an application form with appropriate information; 61% did so successfully.

#305. Instructed to write a letter ordering a pair of sea horses from a given address, 55% did so in an acceptable way.

EXERCISE 304*

(17:7-18) (Overlaps Ex. 206 and 404, Similar to Ex. 105 and 106)

Below is a sample application blank. Ones like it are used to get information from people who are applying for driving licenses, credit cards, passports, and other identification cards. Please print the information requested.

Do not use your own name. For this application blank, each boy should call himself Adam Baker Carson. Each girl should call herself Alice Baker Carson. You may make up the rest of the information.

1. ________________________________
last name first middle initial

2. ________________________________
street address

3. ________________________________
city or town county state

4. DATE OF BIRTH:____________ 5. SEX:______
month day year M or F

6. HT:______ WT:______ HAIR:______ EYES:______

TODAY'S DATE:________________________

SCORING

Acceptable: Every blank completed with appropriate information, and the first three lines printed. Acceptable responses for specific pieces of information required that:

1) the state must be one of the 50 states, and
2) the zip code must be a 5-digit number, and
3) the birthday must include a month or a number from 1 to 12.

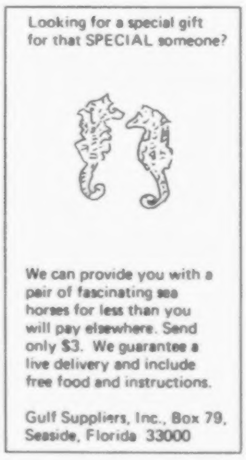
There was a liberal acceptance of "funny" responses such as height--2 feet; weight--400 pounds; hair--green.

Not acceptable: Error or omission in any blank of the application.

*This exercise is presented here as it was given at age 17. See Exercise 206 and Exercise 404 for minor differences in the presentation at ages 13 and Adult.

EXERCISE 305*

(17:11-11) (Overlaps Exercises 204 and 405)



Looking for a special gift for that SPECIAL someone?

We can provide you with a pair of fascinating sea horses for less than you will pay elsewhere. Send only $3. We guarantee a live delivery and include free food and instructions.

Gulf Suppliers, Inc., Box 79,
Seaside, Florida 33000

Someone who lives at 320 Random Road in Port Huron, Michigan 48121, has decided to buy a pair of sea horses. Write a letter that he (or she) can send to order them.

(Approximately one page of lined space was provided for the response.)

SCORING

Acceptable: The letter must include the following:

1) the product wanted, and
2) the sender's address.

Mentioning that money was enclosed was not necessary for acceptability.

Not acceptable: Omission or error in either of the above pieces of information

*This exercise is presented here as it was given at ages 13 and 17. See Exercise 405 for minor differences in its presentation at the Adult level.

EXERCISE 304
(continued)

(17:7-18)

RESULTS

Age 17

61%	Acceptable
39	Not acceptable
1	No response
101%	

EXERCISE 305
(continued)

(17:11-11)

RESULTS

Age 17

55%	Acceptable
43	Not acceptable
2	No response
100%	

Age 17

Objective III. Write to Communicate Adequately in a Scholastic Situation.

The four exercises written for this objective were of the essay type. Two of them are released,and one is discussed in Chapter 3, the other in Chapter 4.

Age 17

Objective IV. Appreciate the Value of Writing.

The seven exercises under this objective range from easy to difficult. The three released fall in the middle and easy ranges, as Figure 2-3 (page 35) shows.

#306. Asked whether they had left a written message for someone during the past 12 months, 86% said they had done so.

#307. Seventeens were asked if they had ever written any of a list of six types of writing other than as a school assignment; 84% said "yes" to one or more of them. At least 50% said they had written a poem (64%), a short story (54%), or the words for a song (50%). Fewer than 20% said "yes" to a play (18%), a story for a newspaper (17%), and an article for a magazine (11%). Of the 17s, 16% indicated they had not written any of the things listed.

#308. Asked whether they had written a letter to order something through the mail during the last 12 months, 54% said "yes."

EXERCISE 306*

(17:6-17) (Overlaps Exercises 210 and 406)

During the last 12 months, did you leave a written message for some person?

Age 17

86%	Yes
13	No
1	No response
100%	

If "Yes," about how many times?_______________**

---

*This exercise is presented here as it was given at age 17. See Exercise 406 for minor differences in its presentation at the Adult level.

**This information was asked as a check on the above question, but is not reported.

EXERCISE 307*

(17:10-13) (Overlaps Exercise 209, Similar to Exercise 108)

Other than for a school assignment, have you ever written any of the following:

Age 17

	Poem
64%	Yes
36	No
	Short Story
54	Yes
46	No
	Play
18	Yes
82	No
	Article for a magazine
11	Yes
89	No
	Story for a newspaper
17	Yes
83	No
	Words for a song
50	Yes
50	No

Percentage who stated they had written:

84%	1 or more of the items listed
66	2 or more of the items listed
42	3 or more of the items listed
17	4 or more of the items listed
5	5 or more of the items listed
1	All 6 of the items listed
16%	0 of the items listed

---

*This exercise was typed double space in the respondent's package.

EXERCISE 308

(17:7-17) (Overlaps Exercise 409)

During the last 12 months, did you write a letter to order something through the mail?

Age 17

54%	Yes
45	No
0	No response
99%	

If "Yes," about how many times?

---

*This information was asked as a check on the above question, but is not reported.

Adults

Objective I. Write to Communicate Adequately in a Social Situation.

Three of the four exercises administered for this objective are released. One of them is an essay type, and is reported in Chapter 3. Two of them are reported here, and they show that 57% of the adults gave an acceptable response when asked to describe how to make or do something, and 38% described an automobile accident in an acceptable way. The fourth, unreleased exercise is in the middle difficulty range, as Figure 2-4 illustrates (page 44).

#401. Adults were asked to give the steps for making or doing something; 57% gave an acceptable response. Of these, 37% gave the important steps along with specific information that would enable the reader to do the job correctly, and 20% gave the important steps but didn't give sufficient detail for the reader to carry out the job. No response was given by 18%.

#402. Shown a diagram of an accident involving two cars, Adults were told to study the diagram and then describe the accident. Their description had to include four pieces of information to be judged acceptable; 38% of the adults completed this task successfully, 52% did not, and 10% gave no response.

NUMBER OF WRITING EXERCISES AT DIFFERENT LEVELS OF SUCCESS

ADULT

Percent Acceptable	OBJECTIVE			
	I Social	II Business	III Scholastic	IV Appreciation
95-99				●
90-94				
85-89				
80-84				
75-79		○		●○
70-74				●
65-69				○
60-64				○
55-59	●			●
50-54	○	●●		
45-49		●		
40-44				
35-39	●			
30-34		○		
25-29				
20-24				
15-19				
10-14				
5-9				
0-4				
Essays	●			

● Released

○ Not released

Each circle represents one exercise.

Figure 2-4

EXERCISE 401*

(Adult:1-22) (Overlaps Exercise 302)

When we make or do something, we usually follow certain procedures. There are certain steps to follow in baking bread, tarring a roof, cutting a pattern, painting a house, repairing a car, developing film, changing a tire, and other such activities. Choose something that you know how to make or do. In the space below, describe from the beginning the steps that you follow in order to make it or do it. Make the directions as simple and clear as possible. Someone who is not familiar with the process that you are describing should be able to understand and follow your directions.

(Approximately 1-1/4 pages of lined space were provided for the response.)

SCORING

Acceptable: The response must include all steps needed to follow the procedure. Acceptable responses were scored in one of two categories:

1) acceptable and specific: The respondent lists all important steps with specific information that would enable the reader to do the job correctly.

2) acceptable but not specific: The respondent mentions all the important steps, but does not give enough detail so that a reader would be able to do the job correctly. For example, a recipe is given, but there is no mention of how much of one or more ingredients.

Not acceptable: Omitting a step necessary for the procedure, or not giving enough information for the reader to follow the procedure. For example, a description is given of how to change a tire, but it isn't stated that the emergency brake should be pulled or that the car should be put in park; or the procedure for cutting a pattern states only, "follow the directions."

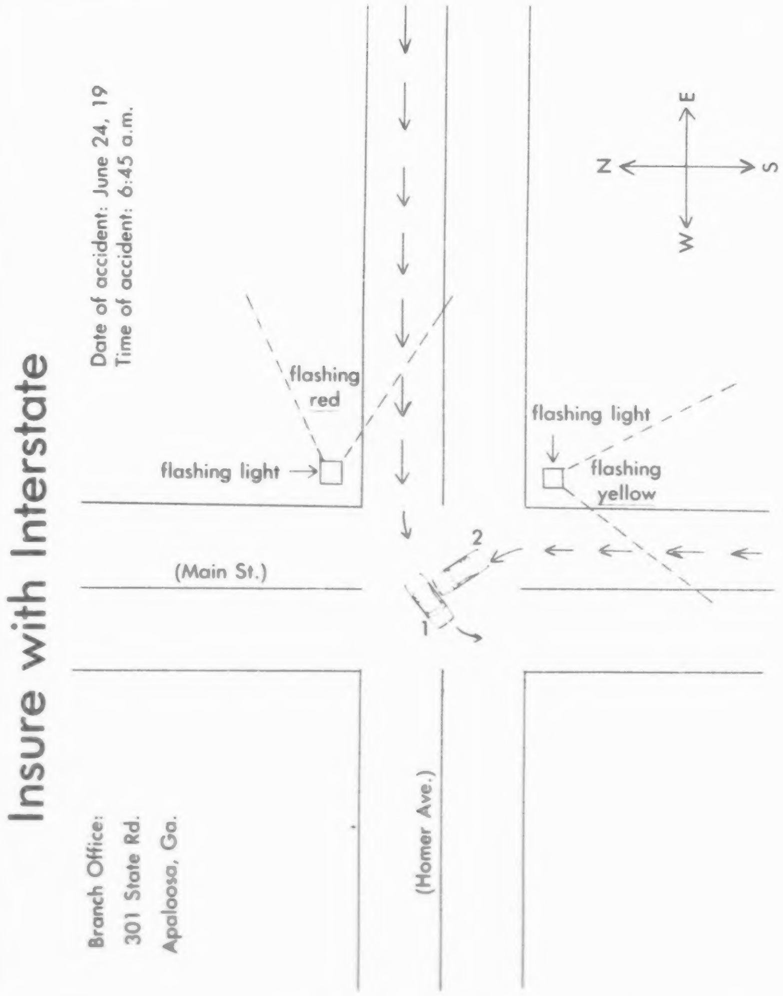
RESULTS

Adult	
37%	Acceptable and specific
20	Acceptable but not specific
57%	
25	Not acceptable
18	No response
100%	

*This exercise is presented here as it was given at the Adult level. See Exercise 302 for minor differences in its presentation at age 17.

EXERCISE 402

(Adult:5-23)



EXERCISE 402*

(Adult:5-23) (Overlaps Exercise 303)

Here is a diagram of an automobile accident. Study the diagram for a while and then in the space below describe the accident in your own words.

(Approximately 1-1/2 pages of lined space were provided for the response.)

SCORING

Acceptable: The description must mention four of the following:

1) name of the street for each car
2) direction each car was traveling
3) which traffic light each one had
4) the fact that each was turning
5) the fact that a collision occurred.

Not acceptable: If the description contained a mistake, for instance, that car #1 had a yellow light or that car #2 was turning right, it was automatically counted unacceptable, no matter how good the rest of the description was.

RESULTS

Adult	
38%	Acceptable
52	Not acceptable
10	No response
100%	

*This exercise is presented here as it was given at the Adult level. See Exercise 303 for minor differences in its presentation at age 17.

Adults

Objective II. Write to Communicate Adequately in a Business or Vocational Situation.

Three of the five exercises for this objective are reported here. Approximately 50% could complete each of the three successfully, while the two unreleased ones were answered acceptably by 75% and 34% of the adults. This is shown in Figure 2-4, page 44.

#403. Asked to invite the mayor or some other leader in the community to speak to a club, business association, or church group, 51% of the adults wrote a letter which included all necessary information, while 28% gave no response.

#404. Of the adults, 50% could fill in all the blanks of an application form with appropriate information, while 5% gave no response.

#405. Adults were asked to order a pair of sea horses from a given address; 49% of them did so, 30% gave a response which did not include all the necessary information, and 20% gave no response.

EXERCISE 403

(Adult:4-21) (Similar to Exercise 205)

Let us say that you are an officer in a local club, business association, or church group. One of your responsibilities is to invite people to speak to your organization at one of its regular meetings. Write a letter which offers such an invitation to the mayor of your town, your township committeeman, the manager of one of your local athletic teams, a prominent educator or businessman, or any other person whom you think would be appropriate.

(Approximately 2-1/2 lined pages were provided for the response.)

SCORING

Acceptable: The letter must:

1) be a letter of invitation, and
2) include some reference to an organization that is doing the inviting and ask for or give a date for the invitation, and
3) be appropriately constructed and acceptably written.

Not acceptable: Omitting any of the above.

RESULTS

Adult	
51%	Acceptable
21	Not acceptable
28	No response
100%	

EXERCISE 404*

(Adult:9-22) (Overlaps Ex. 206 and 304, Similar tp Ex. 105 and 106)

Below is a sample application blank. Ones like it are used to get information from people who are applying for driving licenses, credit cards, passports, and other identification cards. Please print the information requested.

Do not use your own name. For this application blank, each man should call himself Adam Baker Carson. Each woman should call herself Alice Baker Carson. You may make up the rest of the information.

1. ______________________________
last name first middle initial

2. ______________________________
street address

3. ______________________________
city or town county state zip code

4. DATE OF BIRTH: ______________ 5. SEX: ________
month day year M or F

6. HT: ____ WT: ____ HAIR: ____ EYES: ____

TODAY'S DATE: ______________________

SCORING

Acceptable: Every blank completed with appropriate information, and the first three lines printed. Acceptable responses for specific pieces of information required that:

1) the state must be one of the 50 states
2) the zip code must be a 5-digit number
3) the birthday must include a month or a number from 1 to 12.

There was a liberal acceptance of "funny" responses such as height--2 feet; weight--400 pounds; hair--green.

Not acceptable: Error or omission in any blank of the application.

*This exercise is presented here as it was given at the Adult level. See Exercise 206 and Exercise 304 for minor differences in the presentation at ages 13 and 17.

EXERCISE 404
(continued)

(Adult:9-22)

RESULTS

Adult	
50%	Acceptable
44	Not acceptable
5	No response
99%	

Percentage completing each blank:[1]

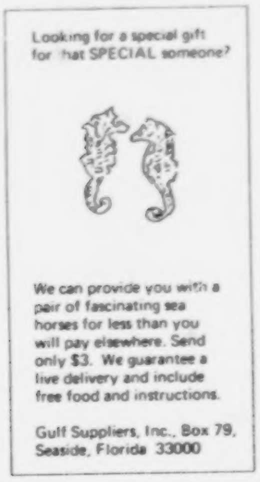
62%	correct name
89	correct order of name
91	number and street or rural route
92	city or town
82	county
89	state
82	zip code
92	birthday (month, day, and year)
93	birthday in correct order
91	sex, height, weight, color of hair, color of eyes
92	today's date (month, day, and year)
81	printed, not written

---

[1] Includes responses judged acceptable and those judged not acceptable.

EXERCISE 405*

(Adult:8-23) (Overlaps Exercises 204 and 305)



Looking for a special gift
for that SPECIAL someone?

We can provide you with a
pair of fascinating sea
horses for less than you
will pay elsewhere. Send
only $3. We guarantee a
live delivery and include
free food and instructions.

Gulf Suppliers, Inc., Box 79,
Seaside, Florida 33000

Lois Dressler (Mrs. Marshal P. Dressler) lives at 320 Random Road in Port Huron, Michigan 48121. She has decided to give her ten-year-old daughter a pair of sea horses for her birthday. In the space below, write the letter that you think Mrs. Dressler should write to order the sea horses.

(Approximately 1-1/4 pages of lined space were provided for the response.)

SCORING

Acceptable: The letter must include the following:

1) the product wanted, and
2) the sender's address.

Mentioning that money was enclosed was not necessary for acceptability.

Not acceptable: Omission or error in either of the above pieces of information.

*This exercise is presented here as it was given at the Adult level. See Exercise 204 and Exercise 305 for minor differences in the presentation at ages 13 and,17.

EXERCISE 405
(continued)

(Adult:8-23)

RESULTS

Adult	
49%	Acceptable
30	Not acceptable
20	No response
99%	

Adults

Objective III. Write to Communicate Adequately in a Scholastic Situation.

There were no exercises under this objective for Adults.

Adults

Objective IV. Appreciate the Value of Writing.

Four of the seven exercises written under Objective IV were released, as Figure 2-4 (page 44) illustrates. The results for the five show that a large proportion of adults say they engage in various activities and would like to improve their writing if offered a free course.

#406. Asked what they ordinarily read during the week, 97% stated they read at least one of the following: 60% read books; 46%, business letters; 65%, directions or instructions; 78%, magazines; 95%, newspapers; 65%, personal letters; 49%, recipes; and 8%, some other type of reading matter. Only 3% did not indicate reading any of them.

#407. Asked if they had left a written message for someone during the past 12 months, 79% said "yes" and 21% said "no."

#408. Of 73% of the adults who said they had made a trip away from home during the past 12 months, 71% indicated they had performed one or more writing activities: 28% said they had written a postcard; 27% said they had written a letter after they got home telling about a trip; 15% said they had written a letter while on a trip; 6% said they had kept a diary; 14% said they had made notes about a trip; 27% said they had written a thank-you to someone they visited; and 8% said they had written a report about a trip after they got home. Of the adults who said they had taken a trip, 29% indicated they had written none of these things.

#409. Fifty-five percent said they had written a letter to order something through the mail during the past 12 months.

EXERCISE 406

(Adult:1-21)

Please fill in the oval before each of the following that you read during the week.

Adult	
60%	Books
46	Business letters
65	Directions or instructions
78	Magazines
95	Newspapers
65	Personal letters
49	Recipes
8	Other (please describe) not categorized
3	None

Percentage who stated they read each week:

97%	1 or more of the items listed
96	2 or more of the items listed
88	3 or more of the items listed
76	4 or more of the items listed
59	5 or more of the items listed
34	6 or more of the items listed
15	7 or more of the items listed
2	8 of the items listed

EXERCISE 407*

(Adult:8-4) (Overlaps Exercises 210 and 306)

A. During the last 12 months, did you leave a written message for someone?

Adult	
79%	Yes (Go to B)
21	No (Go to next exercise)
0	No response
100%	

B. (If "Yes" to A) About how many times?__________**

---

*This exercise is presented here as it was given at the Adult level. See Exercise 210 and Exercise 306 for minor differences in the presentation at ages 13 and 17.

**This information was asked as a check on part A, but is not reported.

EXERCISE 408

(Adult:1-6) (Overlaps Exercises 109 and 208)

A. During the last 12 months, did you take any trips away from home?

Adult	
73%	Yes (Go to B)
27	No (Go to instructions at end of this exercise)

B. (If "Yes" to A) Did you

	send a postcard while on a trip?
28	Yes
45	No
	write a letter telling about a trip after you got home?
27	Yes
46	No
	write a letter while on a trip?
15	Yes
59	No
	keep a diary while on a trip?
6	Yes
68	No
	make notes about some of the things you saw?
14	Yes
59	No
	write a thank-you note to someone you visited?
27	Yes
46	No
	write a report about a trip after you got home?
8	Yes
65	No

Percent who responded to part B and said "Yes" to:

71%	1 or more questions
48	2 or more questions
26	3 or more questions
13	4 or more questions
6	5 or more questions
3	6 or more questions
1	All 7 of the questions
29	0 questions

EXERCISE 409

(Adult:7-2) (Overlaps Exercise 308)

A. During the last 12 months, did you write a letter to order something through the mail?

Adult	
55%	Yes (Go to B)
44	No (Go to next exercise)
1	No response
100%	

B. (If "Yes" to A) About how many times?__________*

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*This information was asked as a check on part A, but is not reported.

3.

RESULTS FOR THE ESSAY EXERCISES

Eight released exercises asked respondents to produce some type of writing, which was scored using the procedure described in detail in Appendix C. In this procedure, trained readers read responses which for these exercises, are either essays or letters, form an overall impression of "quality," compare this "quality" with a set of standard responses to which scores have been assigned, and assign a corresponding score to the essay or letter. The procedure followed by National Assessment readers was first to read a sample of essays or letters for each exercise and order them from "best" to "worst." The essays were scored from 0 to 8, with 0 indicating no response (blank paper, or individual says "I can't do it"), and 8 denoting the best quality. Two readers read each essay and independently assigned a number to it; the possible range of total scores thus was from 0 to 16.

This chapter will show examples of a quality which a large percentage (about 85%) of respondents were able to reach, those which about half could reach, and those of a quality which about 15% could reach. The reader thus can see for himself the kind of writing effort which people of different ages produced. One exercise of this type overlaps ages 13 and 17, and is reported in Chapter 4.

Most of the essay type exercises (as might be expected for students) fall under Objective III, Write to Communicate Adequately in a Scholastic Situation. There are two exceptions. One exercise given to 13s asked that they write a letter to an imaginary pen pal. This was classified under Objective I, Write to Communicate Adequately in a Social Situation. The exercise administered to adults also falls under Objective I. It asked the adult to write a letter to a road commissioner taking a position about a proposed highway interchange.

Age 9

Three essay type exercises are released at this age, one asking students to describe what happens when they go to school, one asking them to look at a picture of a forest fire and write a story about what is happening in the picture, and the third showing a picture of an astronaut on the moon and asking them to write a story about it.

#E-1. (Age 9: 1-21)

Think about what happens when you go to school. Write a little story that tells what you do from the time you leave where you live until you get to school. Be sure to include everything that you think is important.

(The rest of the page provided lines for their responses. Students could continue on the other side of the page if they wished.)

Examples of what the 9-year-olds wrote for this exercise are shown on the following pages.

Below are examples of the better papers written by 9-year-olds; 13% of the 9s wrote papers at least as good as these.

after I have left from home our father drives us to school he parks in front of the school on the other side of the street. Then he lets me out so I can cross the street to the school. Then I cross the street and go in the school to put my lunch away and hang up my coat because I don't go out for recess in the mournings

---

From my house to the school it is about 3 blocks. I wolk with my sister and brother When I get to school the first think we usually do is have the "Pledge of alegience our class is very proud to see the american flag in our classroom. after that we have reading, then we have spelling, after that math on Tuesday & Friday's we have gym. Then we go out for reccess, then we go home for lunch, when we come back for the rest of school we played on the playground until the bell rings then we have social studies, sometimes we have art. Then we go home.

I get on the Bus. We go to another school and drop of most of the kids. Then we go to my school and drop me off. I wolk up to sidewalk then I go in the school door. I take of my boots and put on any shoes. Then I go in my classroom and I hang up my coat and my things. Then we wait for about 5 minutes and then we say our preyers.

Here are examples of typical papers written by 9-year-olds; 51% wrote papers at least as good as these.

When we are waiting for the bus we sometimes play games down at the end of the road. Then when the bus comes we get on it and I find my girlfriend and then we start talking about when we grow up we will march in a prade. And then we stop and go on in school.

I stop at house and get peples And we play with my dog. And we came to School we read books. And we stop at the store. Andwe have a good time. Andwe see house and dog. And we see some pig And we walk to School.

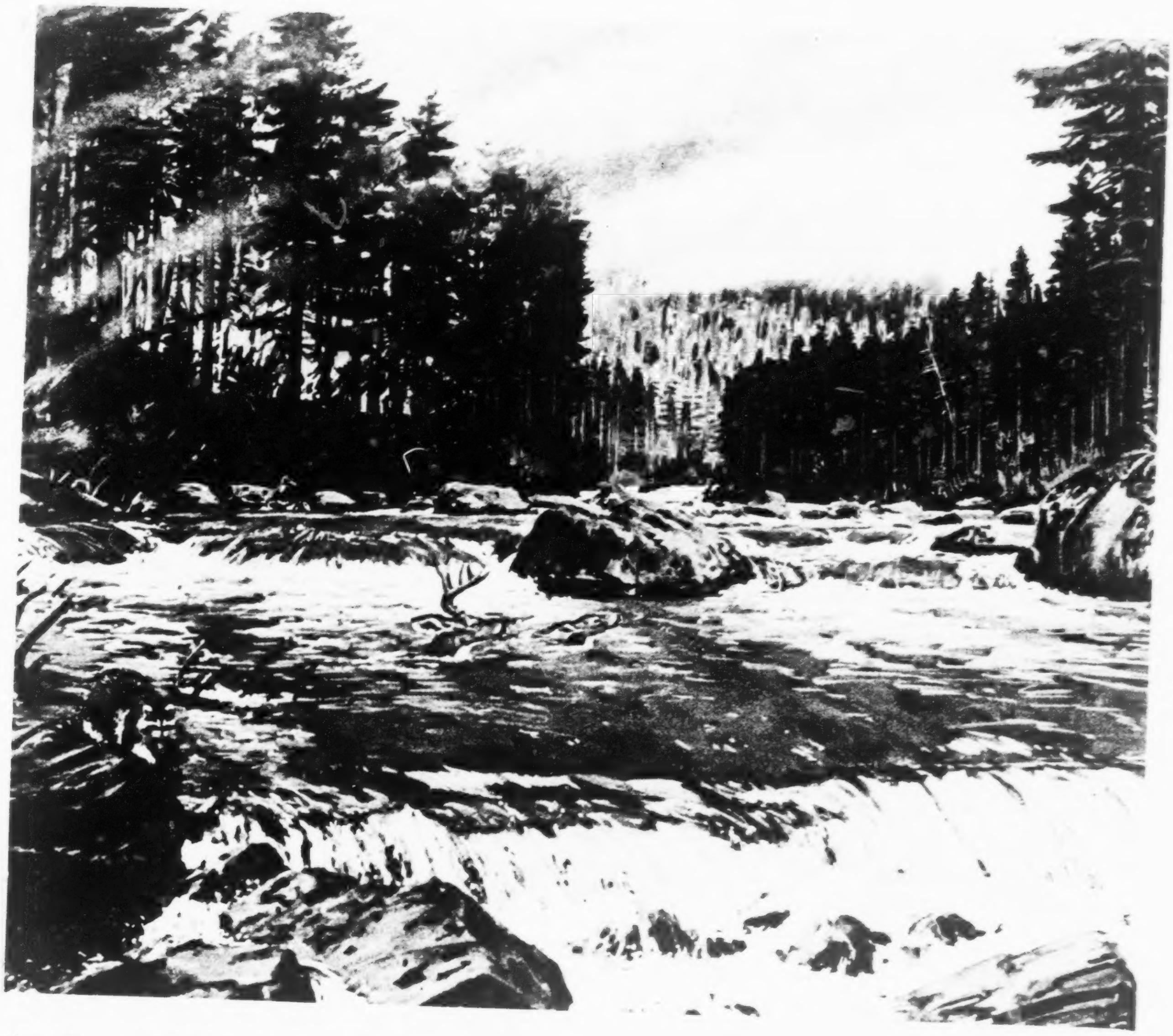
I go across the street pick up my girl freind. Go down the street turn right cross a little street walk to the next corner cross the avenue and the other big street go to the schoolyard play hopscotch and where the bell rings get in line and wait to go in.

Most 9s could write papers as good as or better than the examples below; 97% wrote papers at least this good.

I go out the door. And go through my yard
then through Kelly's yard then the school
sidewalk then I go in the school bilding.

I walk to school.
And stop and git Mozella.
and walk up the street.
I leave home at 8:00

I likes my English work. that is
important. to my mother and
father to. and I like school.



#E-2. (Age 9: 2-22)

Here is a picture of something sad that is going on in the forest. Look at the picture for a while. Do you see the forest fire? Write a story about what is happening in the picture. This is an important story because you want people to know about this sad event.

(The picture students saw was in color. The rest of the page provided lines for their responses. Students were instructed to use the back of the page if they wished.)

Examples of the papers 9-year-olds wrote in response to this picture are shown on the following pages.

Below are examples of the better papers written by 9-year-olds; 20% of the 9s wrote papers at least as good as these.

There was a fire in the woods one day. It was burning the trees down and burning the grass. It was a real big fire. There was a river near by but there wasn't any body to put it out. There were rocks in the water. There were dear swiming across the river to get away from the fire. There was a raccoon on a rock try to get across. The fire was getting biger and biger. The water was runing down a small hill.

One day in the forest I saw some deer. They were looking for food. All the suddend the forest was on fire. The deer were traped in between the fire and a river. The fire was about to burn the deer. So the deer jumped in the river and began to swim to the other side. The little one almost drown Finally they got to the other side. It was safe their. I ran home to mother and told her. She did not believe it. She said did you really see two deer. Then I told her the hole story. She said she wish she was there. I will never forget that time.

One day a man threw a match down. It started a big forest fire. All the animals were scared. Some of them ran but the fire blocked them. Rabbits went down in there homes. Finaly a ranger saw the fire. A lot of the animals were killed. It took the firefighters a whole day to put out the fire.

Here are examples of typical papers written by 9-year-olds; 64% wrote papers at least as good as these.

The deers are swimming across the river becasce they do not have a home becasce the fie burned it dwon Somebody did lite a match that in what cause the fire. The animals is swimming to salfing for the a fire will not kill them. The trees will be barned down the hill will be black. Then the animals will not have anything to eat and then they would die. The trees will be dwon on the ground. all the animals will die that did not cross the river.

A careless man may have not put out his cigrette well enough This might have started this forest fires. The trees will burn down and some of the forest animals may be caught in this fire and be killed. The forest animals that did get out of the forest will head for the river I think that if, we could prevent this forest fire, we would have more wildlife and less burned down forests.

Once upon a time there was a big forest there was 400 arces of treek and thonands of Animals. but one day the forest caught a fire trees was burning down and falling there wres 2,000 firemen fight the fire, blazes was going 300 feet high in the air, in two weeks the hold forest burned downa killed 500 hundred Animals and 100 men and burned down 8,000 trees, and that was the end of the great forest fire

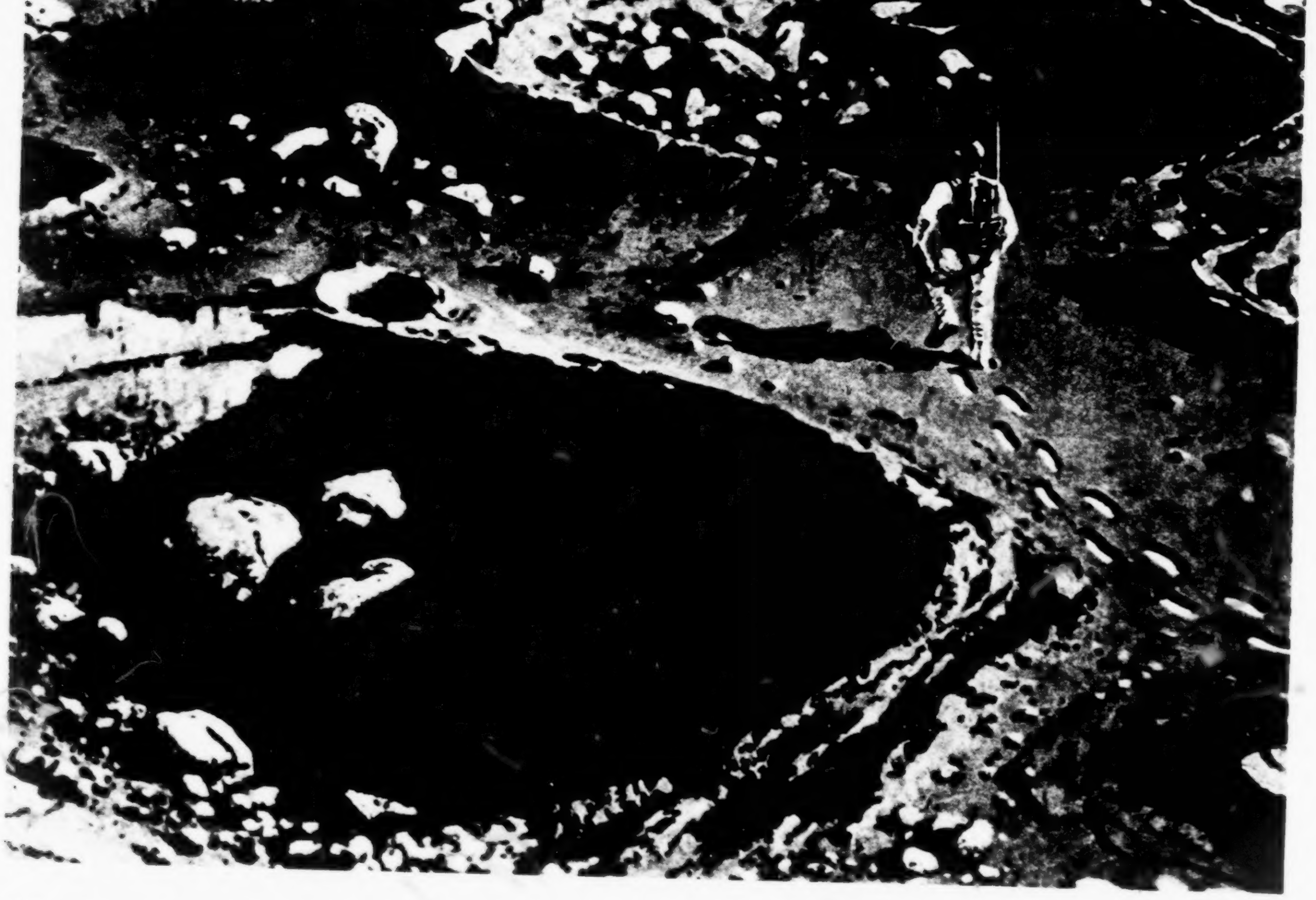
Most 9s could write papers as good as or better than the examples below; 96% wrote papers at least this good.

Sone one have been caralsa
a drop a mach. a starch a forest
fire. And oue in the picture it show
two deep. Gone in to the watch
and .corn to, and I see a deep.
a watch fall, and I see rock.
And I see the tree our fire. And
a tree. And I see a the two
a fathr and mother.
The Eand

A fire is in woods. The fere
is speing over woods.
an som is in the sky.
the fire is at the worth.
tree are folling in the worth,

The forest is on fire, and The
anomils are runing. Deers and other
forest anom ils are running. The
trees are green and protty.
Thler is wuter and rocks and stones
a tree brock down. and That
is all I wunt to say.

Good-by



#E-3. (Age 9: 4-19)

Here is a picture of an astronaut on the moon. Look at the picture for a while and think about what is happening. Now, pretend that YOU were the astronaut, and write a story about your walk on the moon.

(The rest of the page provided lines for the responses. Students could use the back of the page if they wished.)

Examples of what 9-year-olds wrote in response are shown on the following pages.

Below are examples of the better papers written by 9-year-olds; 8% of the 9s wrote papers at least as good as these.

When I was walking on the moon I was scared a little because it was so dark on the moon. I walked inbetween two crators they were very big, big enough to hold a little house. There was a shadow of a giant crator, and boulders big enough to crash right through a steel wall. It is time for me to go back to the L.E.M. now Good-by

The Ship landed with a crash and my partener stayed in the ship incase any thing hapend I got out of the ship but I was a little afraid because man had never walked on the moon when I got out the soil felt quite funny on my feet and there I was the first man on the moon I walked around for a while and stuck the American Flag on the moon and got into the ship and we took off on our way home the Earth, and did I have a story to tell the head of the space program when we got home.

When I got out of our spaceship I explored the planet. When I was walking, I saw some light on the other side of the planet, it looked like Uranium. I got into my spaceship and blasted off. Then I landed it where the light was comming from. When I got out the light I saw was in a cave. I went into the cave. And went out the other side. when I saw the light it was comming out of a volcanoe Then at that second something strange happened the volcanoe erupted. I ran back to my spaceship. When I got back to my spaceship the lava was behind me. then I blasted off.

Here are examples of typical papers written by 9-year-olds; 59% wrote papers at least as good as these.

My walk to the Moon

I m geting near to the moon. I may land soon. I have landed on the moon. I see a big craeter It has a lot of pretty rocks in it. I am going to get some. I am going back to the ship and leav I am going back to earth. Good-by moon.

We are walking on the moon and we find some moon rocks. Then the other guy almost steped in a gravle. The we walked up farther and saw some strange things we saw a big rock. It was all different colors. We walked up faur and saw something moving it was a moon man. He takked kind of stranger Then we got on the rocket slip and herd a sound

---

Well my story begins on the moon. I was walking on the moon when I fell down I hurt my shelf but I got right up agin So I went right on by and by I had to go back down to the earth.

Most 9s could write papers as good as or better than the examples below; 97% wrote papers at least this good.

My Trip
I would walk around and look and see if
andy one was there to. and I wuld see if I
cold flot.

When owr spas ship landed.
Ther ar meny craters. it is
very dark up yer The spas
ship has a cunpartment.
The fag of the unyted stas
The spase ship is big.
The darknes of the moon is
very dark

One day I went to The moon.
and everline I walk it would make
footprints. It hardlays make
foots prentson earth

Age 13

Three essay exercises are released at this age. One, which asks respondents to write about some person they admire very much, was given at age 17 also, and is discussed in Chapter 4. The other two ask students to write a letter to a pen pal and to write about an event in history which they would like to have played a part in.

#E-4. (Age 13: 7-19)

Write a friendly letter to a "pen pal" in another country, telling him (or her) about your preparations for some holiday. Your letter should be as "newsy" as possible because your friend probably does not know how you do things where you live.

(The rest of the page provided lines for their responses. Students could use the back of the page if they wished.)

Examples of papers written in response to this exercise are shown on the following pages.

Below are examples of the better papers written by 13-year-olds; 11% wrote papers at least as good as these.

Dear Pen Pal,

We are preparing for our Thanksgiving holiday here in Memphis, Tennessee. We have bought a turkey and some stuffing. On Thanksgiving we will have turkey and dressing, cranberry sause, corn, peas, beans, carrots, bread, milk, tea, and so many other dishes. That night we will have a hay ride. That is when we rent some horses and a wagon. We spread hay In it and an adult person will take us riding in woods. "Us" is all the children. I hope you are doing fine. Everyone is excited about Thanksgiving. Write me soon.

Your Pen Pal,
Pen Pal

---

444 Yutary Avenue
Tokyo, Japan
October 7, 1969

Dear Iki,

We here in America will start to prepare for Thanksgiving soon. It is a day when all Americans give thanks to God for all the wonderful things he has given us It is a day of jubilation. We eat turkey or something for dinner Huge parades are shown on television and we watch them. In the afternoon we watch football games.

It all began when the Pilgrims had a celebration with the Indians thanking God for their safe journey to America.

Yours truly,

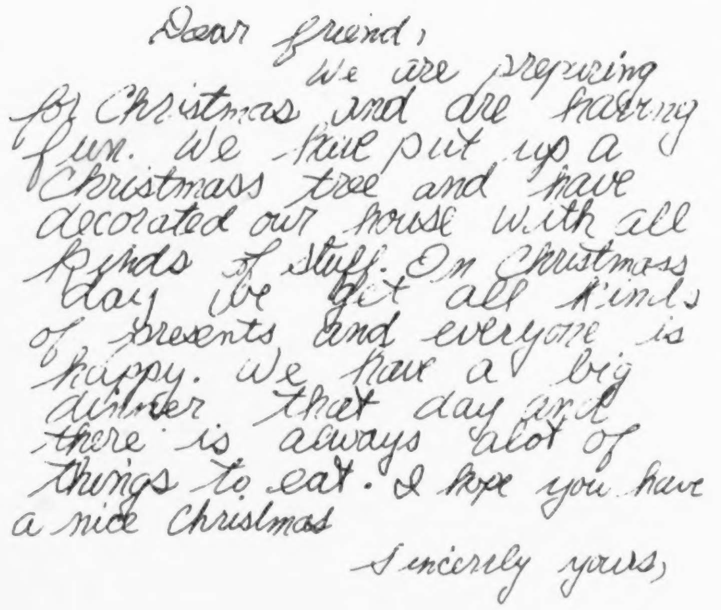
Hi!

How are you, fine I Hope. Well, another Holiday is coming Hope you are having fun. I am celeBRAting christmas. WE Have a Big green pine tree for our CHRistmas tree. We take paper and make ornaments and put lights on it. I WILL start Buying presents for my famiy. I Hope to buy you something. We always wrap packages and put them UNDER OUR tree. THE Night BEFORE CHRISTmas well all open one. OUR parents buy us many things, But we are suppose to think Santa Claus Brings them. This is a tradition we have Santa's in almost all the Stores. He is fat and dressed in Red, He Has WHITE TRIME all around his Suit. The TRADITION has him living in the NORTH Pole with LITTLE ELVES making toys. WHEN CHRIStmass comes He gets in a sled and lets HIS FLYING Rain deers pull him all over The WORLD giving gifts.

PS. write Back soon.

YOUR PEN Pal,

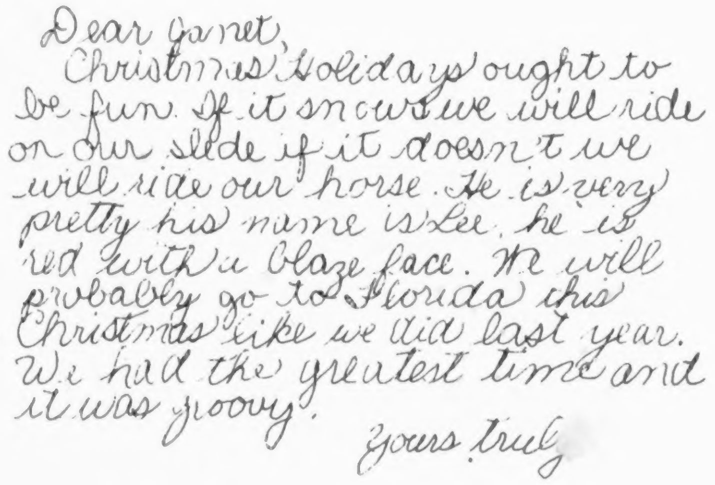
Here are examples of typical papers written by 13-year-olds; 49% wrote papers at least as good as these.



Dear friend,

We are preparing fo Christmas and are having fun. We have put up a Christmass tree and have decorated our house with all kinds of stuff. On Christmass day we get all kinds of presents and everyone is happy. We have a big dinner that day and there is always alot of things to eat. I hope you have a nice Christmas

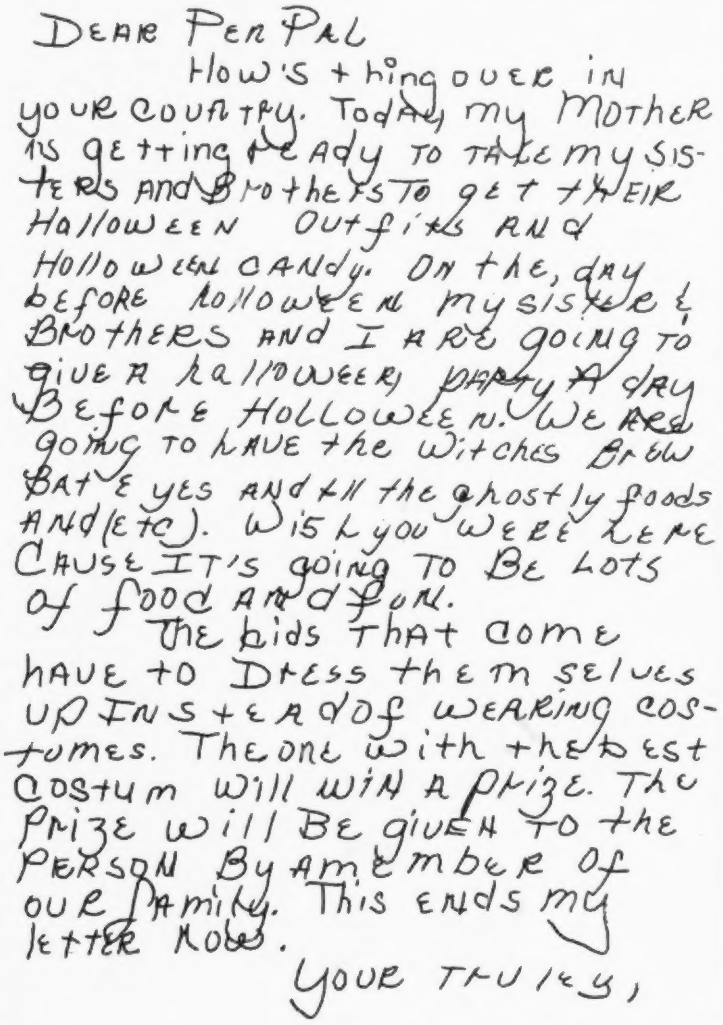
Sincerely yours,



Dear Janet,

Christmas Holidays ought to be fun. If it snows we will ride on our slede if it doesn't we will ride our horse. He is very pretty his name is Lee. he is red with a blaze face. We will probably go to Florida this Christmas like we did last year. We had the greatest time and it was groovy.

Yours truly



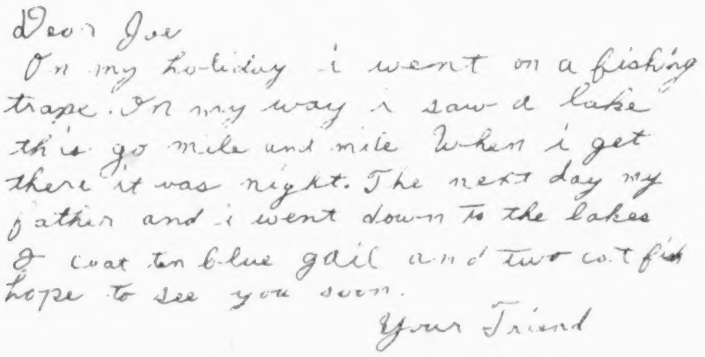
DEAR PEN PAL

How's thing over in your country. Today my Mother is getting ready to take my sisters and Brothers to get their Halloween outfits and Halloween candy. On the, day before Halloween my sister & Brothers and I are going to give a halloween party a day Before Halloween. We are going to have the witches brew Bat eyes and all the ghostly foods and (etc). Wish you were here cause it's going to be lots of food and fun.

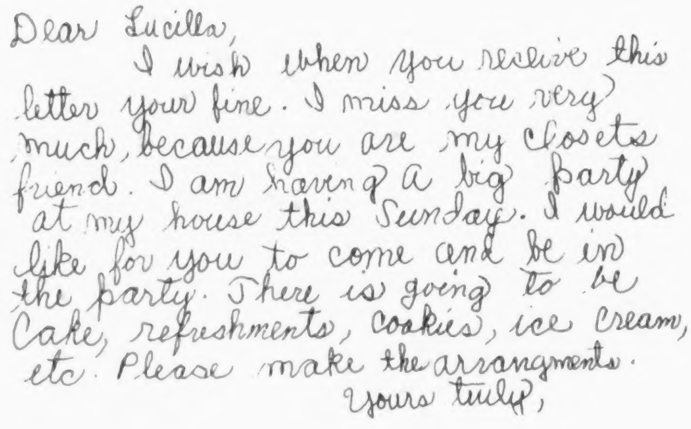
The kids that come have to Dress them selves up instead of wearing costumes. The one with the best costum will win a prize. The prize will be given to the person by a member of our family. This ends my letter now.

Your truly,

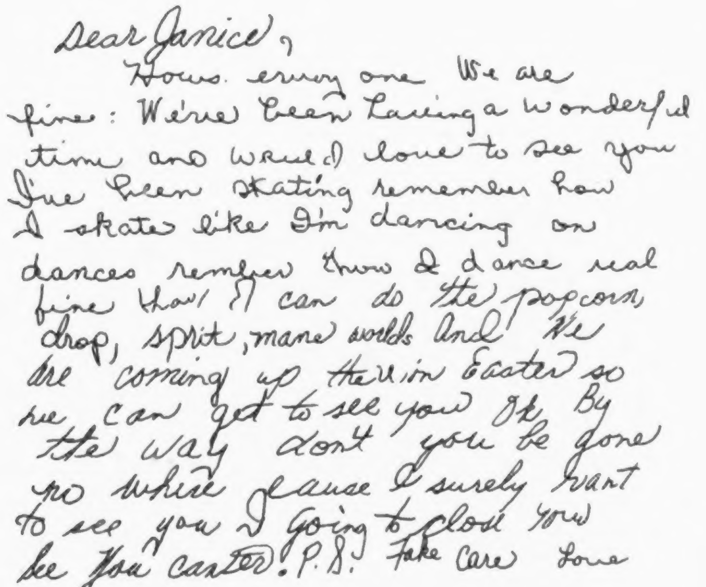
Most 13s could write papers as good as or better than the examples below; 89% wrote papers at least this good.



Dear Joe
On my ho-liday i went on a fishing trape. In my way i saw a lake this go mile and mile When i get there it was night. The next day my father and i went down to the lakes & coat ten blue gail and two cat fish hope to see you soon.
Your Friend



Dear Lucilla,
I wish when you recive this letter your fine. I miss you very much, because you are my closets friend. I am having a big party at my house this Sunday. I would like for you to come and be in the party. There is going to be Cake, refreshments, cookies, ice cream, etc. Please make the arrangments.
Yours truly,



Dear Janice,
Hows. evry one We are fine: We've been having a wonderful time and would love to see you I've been skating remember how I skate like I'm dancing on dances remeber how I dance real fine how I can do the popcorn, drop, sprit, mane worlds And We are coming up there in Easter so we can get to see you Ok, By the way don't you be gone no where cause I surely want to see you I going to close now See You Later! P.S. Take care Love

#E-5. (Age 13: 3-20)

If you could make an event in American history happen again so that you could play a part in it, which one would you choose? Write a composition in which you describe the event and explain why you chose that particular event and what part you would like to play in it.

(The rest of the page provided lines for the responses. Students could use the back of the page if they wished.)

Examples of papers 13-year-olds wrote in response to this exercise are shown on the following pages.

Below are examples of the better papers written by 13-year-olds; 15% of the 13s wrote papers at least as good as these.

I would like to be in the time when women were picketing for their right to vote. I am in favor of equal rights both for men and women and besides they would have to listen to me and other women or else no clothes or good home-cooking or anything! It's not fair for men to be the superior

If I could go back in time and play a certain part in history, I would like to play the part of Paul Revere.

The reason I would like to be him is because he played an important role in the independence of our country. He was one of them that were leaders and made people realize that they should break away from England.

His most important event that I like is the ride to Lexington and Concord. He was a very important person in the event and carried the part out well in warning everybody that the redcoats were coming.

Outside of this he was a very skilled craftsman. He owned a silver shop and was a very good silversmith. One of the best that ever lived!

If I could play a part in American history I would like to play a part in Thomas Jefferson time. I would like to play his sister or his cousin if he had any. I chose that one because I like all the wonderful things I've heard about him and because I think living in that particular time was fun and exciting. Also I wished I could have been present at that time when all those men signed the Declaration Of Independence because not it means alot to us, allover the entire states.

Here are examples of typical papers written by 13-year-olds; 48% wrote papers at least as good as these.

If I could make an went in American history happen again I would like the Revolutionary War Arod I think this was an exciting time when no one knew what would happen next. I would liked to have lived in Boston at the time and been the daughter of one of the Sons of Liberty.

I would want to be back with Mr. Ford the one who invented the automobile. I chose this went so I could help him with his work on thecar. I would help him by telling him how to make a bigger and better engine, transmission, body, and wheels. I would help him with designing the electrical systems also.

I wouldlike to be in the Ohio Valley when the French-Indian War was going on. The war started because that was the main out-post for the French. So the English thought if they tookover that out-post they would takeover all the land that the French owned.

I would like to be George Washington who tried and help take the Ohio Valley over. Because he was the most bravest and always tried to save his man from death He had all the great ideas a man should have.

Most 13s could write papers as good as or better than the examples below; 87% wrote papers at least this good.

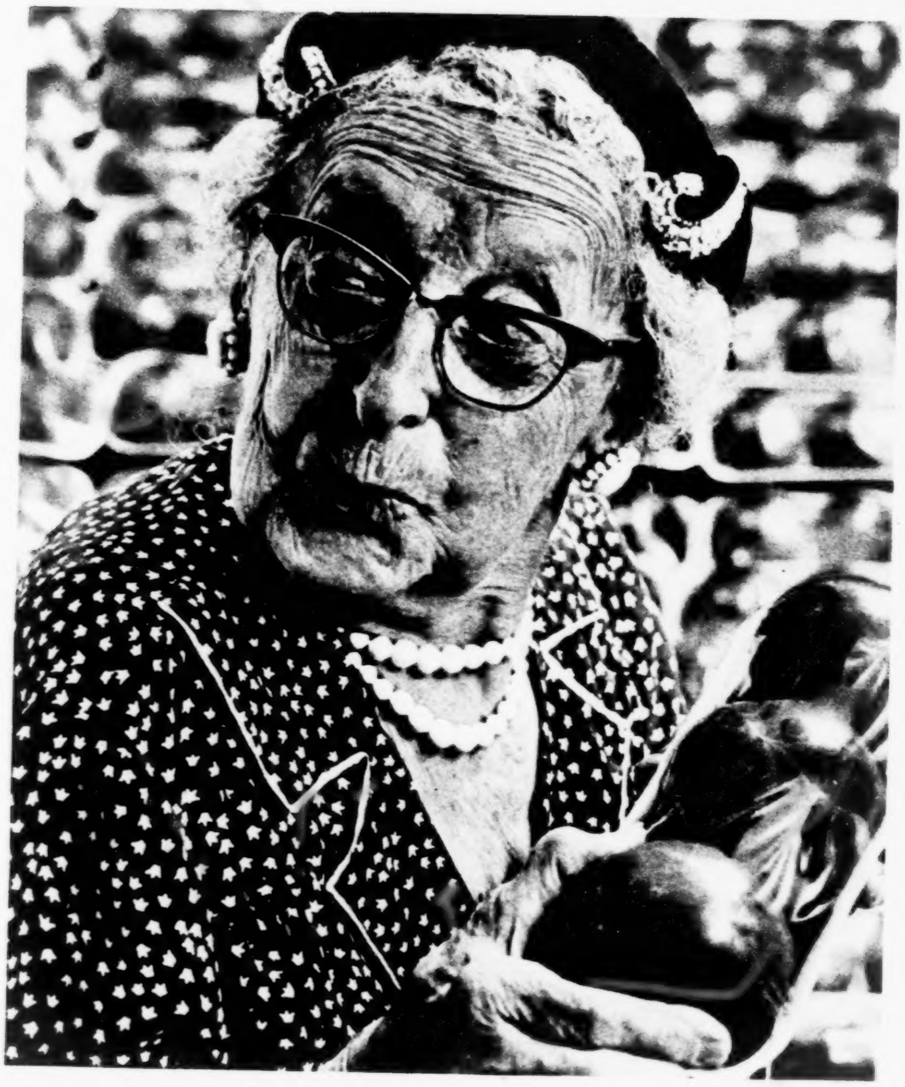
I would like to have Cdumbus
find America. I would want to be
Columbus when he discovered it.

Paul Revere,
I would like to be Paul revere and ride
into town and yell out "here they come";

Or I would of like to a seen George Washington
In the cold blody war of which he fought and
won.

Or Benjamin Franklin who first discovered
Electricity.

I would like to live in a year of
Peace and have war on earth
would not be, and my part in
this year wold to make this
Pease and stop the fight among
the people on earth.



Age 17

The one non-overlapping exercise released at this age showed a picture of an elderly lady holding a package of tomatoes (the picture shown students was in color).

#E-6. (Age 17: 1-11)

Here is a picture of a woman with some tomatoes. Look at the picture for a while and decide what is going on. When you have decided, write a story that tells what is happening in the picture and what is likely to happen next.

(The rest of the page provided lines for their responses. Students could use the back of the page if they wished.)

Examples of papers written by 17-year-olds are given in the following pages

Below are examples of the better papers written by 17-year-olds; 14% of the 17s wrote papers at least as good as these.

She looks around to see if there are any clerks or other store authorities who would apprehend her for shoplifting those tomatoes. There is a 50-50 chance that she will be discovered and then charged with a misdemeanor. She might be using five-finger discount because it gives her a thrill. This seems more true than if she was stealing because she didn't have the money because I can tell by her appearance that she is not poverty striken.

This lady has seen some nice-looking tomatoes at her neighborhood grocery store and proceeded to buy them. She noticed how they were nicely wrapped in plastic and seated in their own individual trays. Upon closer examination of these tomatoes she notices that they are rotten around the bottom and were cleverly concealed in their containers. At the point in which the picture is taken she is scolding the produce manager for trying to sell rotten tomatoes. Next she will replace on the shelf and promptly leave the store.

Mrs. Brown is in the supermarket doing her weekly grocery shopping. While passing the vegetable counter she eyes a shipment of choice, juicy tomatoes. Tomatoes are just what the family has been aching for. Mrs. Brown approaches the counter and is just about to test the tomatoes when the manager appears. He points to the sign above and reads aloud, "Do not squeeze the tomatoes". Red with embarassment Mrs Brown raises her head and says politely that she is quite sorry. But inside her mind is grinding. How does she know for sure that these tomatoes are firm and therefore a good buy? She wants those big red tomatoes but if only she could get a little squeeze. Cautiously she peeks around to see if anyone is near. No, there is no one in sight. One little squeeze won't hurt, will it?

Here are examples of typical papers written by 17-year-olds; 52% wrote papers at least as good as these.

She looks like shes about to steal them and shes looking around to see if any body is watching. This woman is not poor but she forgot her money and check book. She thought there were so many tomatoes that the store wouldn't miss three and she also thought that the store would be happy to let her have them because she is old and helpless. The next thing that happens is a young man sees her put them in her purse and told her he saw her and if she would put them back he wouldn't tell on her and also if she promised never to steal again

---

The Lady seems to be asking about her tomatoes Like most old ladies she going to proably drive the guy crazy with her questions. She asks are the fresh, are the old, or bruised. She'll proably bug the life out of the guy.

It also seems as if she is trying to find something wrong with them so she could get a discount on them.

The tomatoes have just come into season and there a millions of tomatoes all over. In fact, I think shes in a tomatoe shop. Shes amazed at all the gorgious tomatoes and of the reasonable price that they're selling them for. All of the sudden she gets an idea. Shes going to squeeze a tomatoe because she just can't believe that they're real. She looks around to make sure that nobody is looking and then takes a little squeeze "They're REAL!" But somebody has caught her. Little Johnie Smith is standing right there watching her. Just when she had thought Johnie hadnt seen her he spoke up and asked her why she was squeezing them. She went on to explain to him about how this what just about as near perfect a batch of tomatoes as you could ever expect to get so Johnie was satisfied. She bought herself 5 bushels of tomatoes and went home to eat tomatoes, can tomatoes and she even bought tomatoe seeds to plant tomatoes. I think she likes tomatoes!

A large proportion of the 17s wrote papers as good as or better than the examples below; 82% wrote papers at least this good.

The woman appears to be looking to see if any one is watching her pick up the tomatoes She appears to be wanting to hide them as if she wants to steal them. It could almost be said that she has noticed someone watching her and is on the alert.

This picture is showing an old woman who is testing to see if the tomatoes are ripe or if they are soft while the clerk is helping someone else.

While Checking to see if the clerk sees her, she is still pinching the tomatoes and she smashes the tomatoes. She puts them back and walks out of the store.

The woman is squeezing the tomatoes to make sure they are fresh, without the store manager seeing her. What will likely happen next is she will either take these tomatoes or put them back, and pick out another bunch to squeeze

Adults

Only one essay exercise was administered to adults. As for the other ages, examples of their writing are shown in the following pages. However, it should be pointed out that nearly one-third of the adults received a score of "0" on their papers -- 29% either did not attempt to write the essay, or indicated in some way that they could not or would not do so. We do not have information to tell us why this is so, but it is possible that adults did not wish to do the task, either because they felt they couldn't do it well or simply because they were busy.

Examples of only two qualities of writing were selected for adults, since it was impossible to select examples which about 85% produced.

#E-7. (Adult: 3-18)

Read the following news item carefully and then try to do the exercise that follows it.

The State Highway Department announced today that it is considering plans for an additional interchange on the expressway between Market Beach and the state capital. The new interchange would provide access to the historic Windsor Valley through the village of Windsorville and State Highway 260. Highway Commissioner Oliver P. Stroud said that his department had no plans originally to locate an interchange at Windsorville, but official opinion was swayed by a strong campaign led by Windsorville Mayor Charles Kronbacher. Commissioner Stroud quoted a letter from the mayor: "Windsorville has slept long enough in the colonial past. That was 200 years ago, and times change. Bringing in the people who will develop the valley will bring us up to the times and lower the tax rate, too." Commissioner Stroud admitted, however, that there is opposition to the proposed construction. Township Committeeman Milton Swift has already expressed his official opposition in an open letter to township residents. Swift cited such problems as unwanted traffic, broken zoning ordinances, and loss of the valley's historical and rural tradition.

Let us say that you are a resident of Windsorville and have definite feelings about the Highway Department's plans. In the space below write a letter to Commissioner Stroud, telling him how you feel about the planned interchange and why you feel that way.

(Examples of what Adults wrote in response are shown on the following pages.)

Below are examples of the better papers written by adults; 13% wrote papers at least as good as these.

Dear Sir,

I, too, am opposed to the proposed interchange along with Committeeman Swift. I see no reason why we should be subjected to the unneccessary traffic conjestion that this interchange would produce. Also, the tourist flow would be increased to the point where we would be bending our lives to gain their business. I'm afraid that the change our mayor speaks of would be one for the worse instead of the better.

Unless you can show me some proof that this would not take place I'm afraid this is the way I stand on the issue.

Yours truly

Dear Sir,

I am in full agreement with you on the matter of the new expressway. From the material I have read on the subject it will allow more people to see our valley and help our businesses. I does not seem it would harm the town's historical appearance for it would be on the outskirts of town.

We need more people and young people in this town for the future and making it is to get to and making it easy for them to get to other places is one good way of promoting this. I say yes

Sincerely.

Dear Commissioner Stroud,

I, as a concerned citizen of Windsorville am writing this letter to you in regards to the proposed interchange being planned for our community.

Contrary to the opinion of our mayor, Charles Kronbacher, I strongly oppose the construction of the proposed interchange in our community. Windsorville has prided itself in maintaining its rural attributes which include a small community where everyone is friendly, a fortunate lack of prejudice and a strong community sense of togetherness.

The introduction of such a proposed traffic set-up will definitely destroy our beloved rurality. If we desired to live near a city with a great traffic problem, we would not have chosen this community.

Also, taxes will not be lowered! Who will be asked to help with the upkeep of this interchange — we will!

Let's give our village a chance to remain small and quiet. Preserve the historical aspects of our community.

Very sincerely yours,

a concerned
Windsorville
citizen

My family & I have lived in Windsorville for 17 years. During that time we have vacationed in progressive towns & cities. We have always been happy to return to Windsorville as it is. If we felt otherwise, we would move to a more or perhaps even less progressive town.

Please accept this as the word of 2 townspeople who are in faval of leaving Windsorville "off the map".

Here are examples of typical papers written by adults; 53% wrote papers at least as good as these.

Dear Sir

In regards to the new expressway, I feel that it would be an asset to our town.

In regard to your statement that the tax rate would be lower. I feel that you are wrong.

Sincerely

I do not want the new interchange at Windsorville meant to serve "progress". A need has not been established for the new interchange. Until a valid need is evidenced, the interchange should not be approved.

John Doe
Box 10
Windsorville

State Highway Department
Commissioner Shroud

Dear Sir

I am very much in favor of an additonal interchange, as the present one is to congested with traffic.

It would also help business and give the residents jobs and cut down on the unemployment.

thank you

4.

OVERLAPPING TASKS

In each of the three areas assessed in 1969-70, some of the exercises administered to different age levels were similar enough to represent essentially the same task. For example, at ages 9, 13, and 17 there were tape-recorded telephone conversations which called upon the respondent to leave a message for someone. Although the contents of the conversations were different for different ages, the task was the same--to write an intelligible message. Exercises of this sort are referred to as overlapping tasks, since they occur at more than one age level. They provide a basis for comparing performance at different ages and are reported here as well as in the chapter for each age.

The numbers of tasks overlapping the various ages, and the objectives to which they were assigned, are shown in Table 4-1. Of the 18 tasks appearing at more than one age level, 11 are released and discussed in this report. The other seven will be administered again the next time writing is assessed.

Age-to-age comparisons of performance on the overlapping tasks are, with the exception of the two essay exercises, shown in Figures 4-1 and 4-2. In these figures the released tasks are represented by heavy lines, the unreleased tasks by light lines. The conclusion that emerges is that almost without exception the 13s did better than 9s, 17s better than 13s, but young adults more poorly than 17s. The comparative performance of 9s, 13s, and 17s was as expected and generally desired--the older the better. The decline for young adults has various possible interpretations. Loss of skill from lack of practice, less cooperative behavior or improvement in academic training since the young adults were in school--all could be contributing factors. Another possible explanation for the poorer performance by Adults is that the administration of exercises was somewhat different. The exercises were tape recorded for the respondents who were in school, but this was not the case for the Adults.

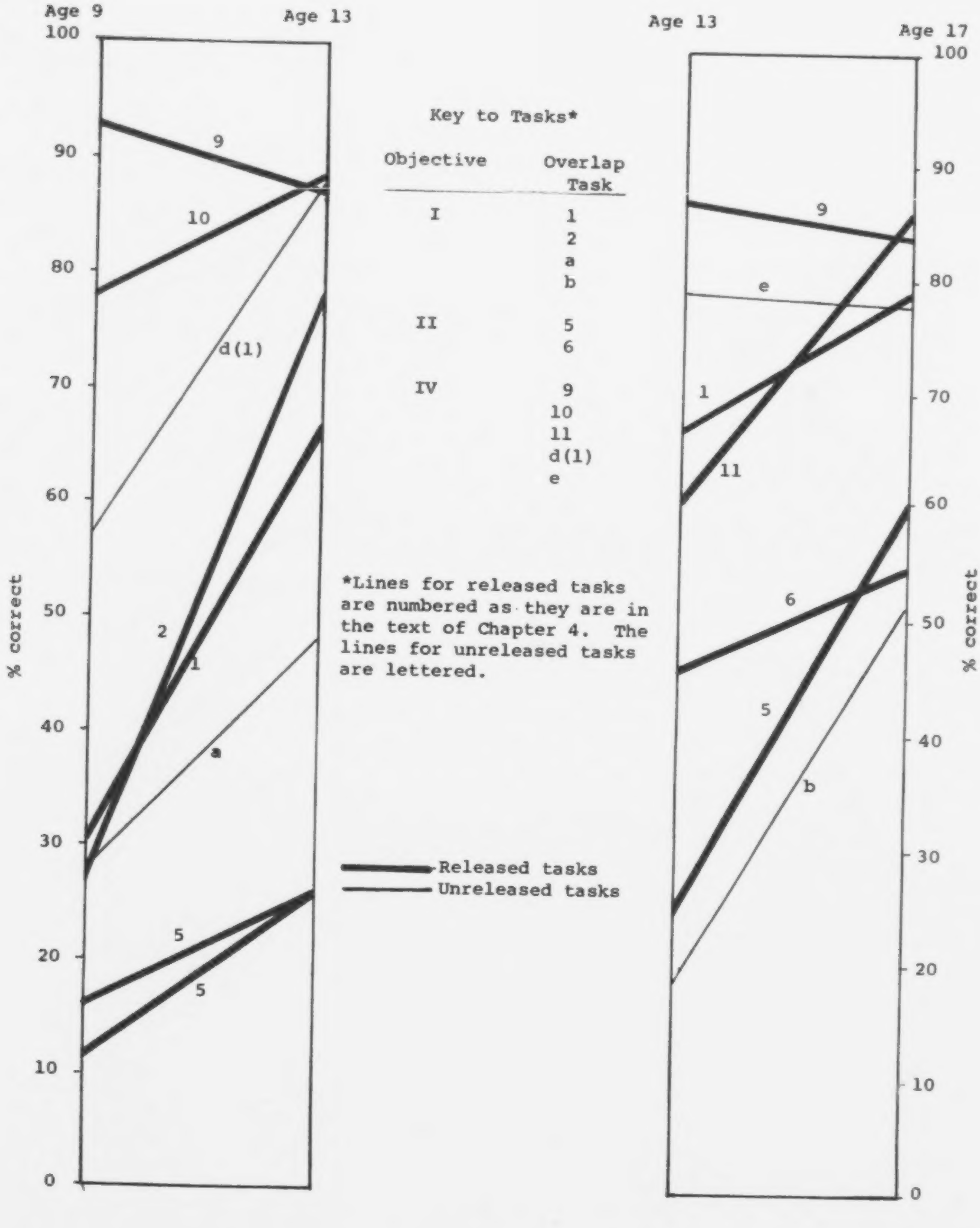
Table 4-1

Numbers of Tasks Overlapping Various Ages

Ages Overlapped	Number of Tasks Released	Related Objectives	Number of Tasks Not Released	Related Objectives
9, 13, 17 Adult	1	II	1	IV
9, 13, 17	1	IV	0	
9, 13, Adult	1	IV	0	
13, 17, Adult	2	II, IV	1	IV
9, 13	1	I	1	I
13, 17	2	I, III	2	I, III
13, Adult	1	II	2	II, IV
17, Adult	3	I, I, IV	0	
TOTAL	12		7	

PERCENTAGES OF THE VARIOUS AGE LEVELS GIVING

ACCEPTABLE RESPONSES TO THE OVERLAP TASKS



Key to Tasks*

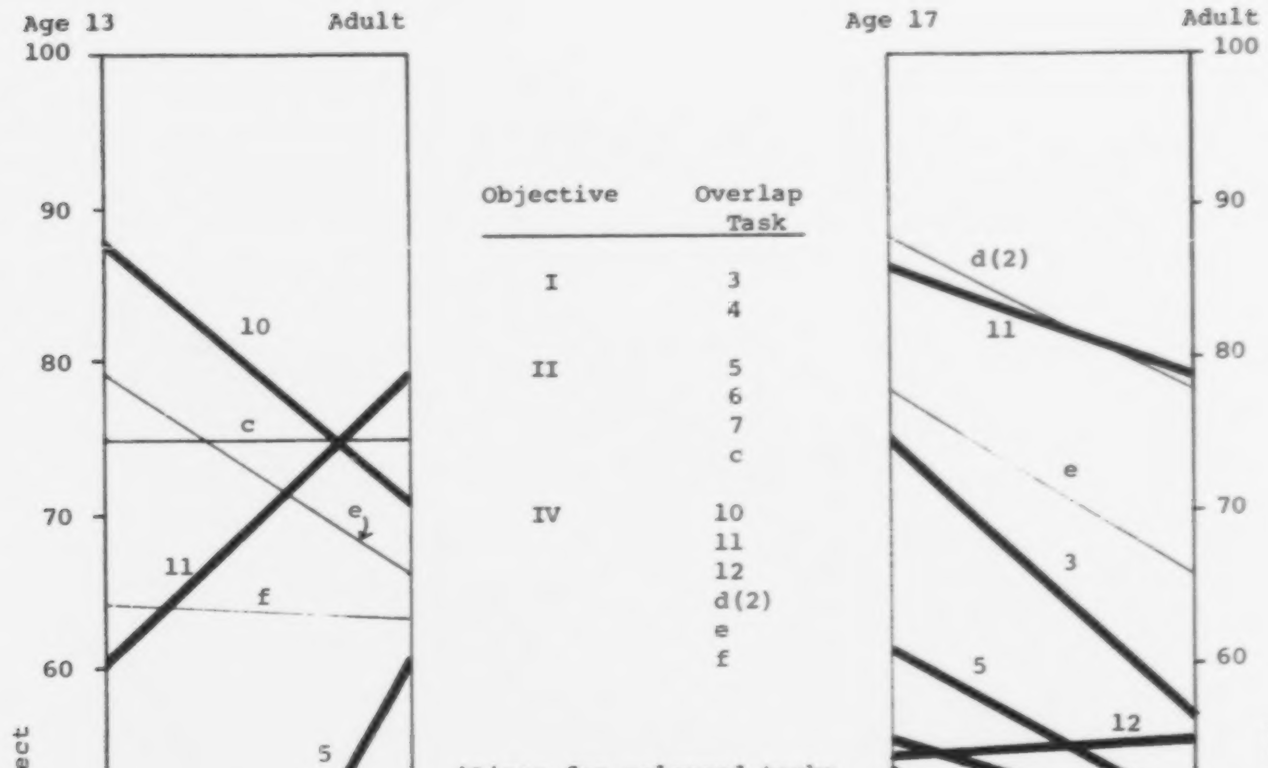
Objective	Overlap Task
I	1 2 a b
II	5 6
IV	9 10 11 d(1) e

*Lines for released tasks are numbered as they are in the text of Chapter 4. The lines for unreleased tasks are lettered.

Figure 4-1

PERCENTAGES OF THE VARIOUS AGE LEVELS GIVING

ACCEPTABLE RESPONSES TO THE OVERLAP TASKS



Objective	Overlap Task
I	3 4
II	5 6 7 c
IV	10 11 12 d(2) e f

*Lines for released tasks are numbered as they are in the text of Chapter 4. The lines for unreleased tasks are lettered.

Figure 4-2

Objective I. Write to Communicate Adequately in a Social Situation.

Four of the overlapping tasks released called for writing of the nature required in social rather than in business or academic situations. One of these exercises was given at ages 9, 13, and 17. The results showed the 13s to be considerably better than the 9s--less than a third of whom were successful--and 79% of the 17s gave acceptable responses. Another exercise was presented to only 9s and 13s. Again, less than a third of the 9s gave acceptable responses and the 13s performed considerably better. The two remaining overlapping exercises dealing with social writing skills were given to 17s and Adults. For both exercises, about 15% more 17s were successful.

#1. This task was in the form of a recorded telephone conversation instructing the listener to leave a written message for someone. It was administered at ages 9, 13, and 17 with different contents. Messages containing all the essential information were produced by 31% of the 9s, 67% of the 13s, and 79% of the 17s.

#2. An exercise administered to 9s and 13s required that they place addressee's and sender's addresses correctly on a simulated envelope. Of the 9s, 28% did this without error, as compared with 78% of the 13s. The city and state names caused the most difficulty for the 9s.

#3. Describing how to make or do something well enough to enable the reader to do a job correctly was done by 75% of the 17s and 57% of the adults.

#4. The most difficult exercise in this group was one which required the respondent to describe an automobile accident after having studied a diagram of it. Four items of information were necessary for an acceptable response: 53% of the 17s and 38% of the adults met this criterion.

OVERLAP TASK 1
Administered at Age 9

(9:5-18; Exercise 103)

You are going to hear two people talking on the telephone. One is a girl named Mary Brown. The other is someone just about your age. His name is Billy. Pretend that YOU are Billy and LISTEN CAREFULLY to what Mary asks Billy to do. (Children then listened to the conversation reproduced below. It was not printed in the children's booklet.)

BILLY: Hello.

Mary: Hello, who is this?

BILLY: This is Billy.

MARY: Billy, this is Mary Brown. Is your sister there?

BILLY: No, she's at the store.

MARY: Will you give her a message for me?

BILLY: Sure, I guess so. What is it?

MARY: This is pretty important, Billy. Can you get some pencil and paper and write it down?

BILLY: O.K. Wait a minute. pause I'm ready now. Go ahead.

MARY: Tell your sister that I'll meet her at Jane's house at 6 o'clock tonight. Got it?

BILLY: No, don't go so fast. Say it again.

MARY: Tell her to meet Mary Brown at Jane's house at 6 o'clock tonight. Got it now?

BILLY: I think so, let me see. Meet Mary Brown at Jane's house at 6 o'clock tonight.

MARY: That's right, Billy, don't forget now. Goodbye.

Mary asked Billy to write a note, didn't she? Now, you will hear them again. Pretend that you are Billy again. Listen carefully, and this time try to write the note that Mary asks Billy to write.

(Approximately 1/2 page of lined space was provided for the response.)

OVERLAP TASK 1
Administered at Age 9
(continued)

(9:5-18)

SCORING

Acceptable: The response must

1. be a note that states:
   a. meet Mary or meet Mary Brown
   b. where: Jane's house
   c. time: 6:00
   d. day: tonight

Not acceptable: Omission or error in any of the above pieces of information, or failure to write a note. Copying the instructions or stating, for example, "Tell your sister to meet Mary..." was not in note form and therefore unacceptable.

RESULTS

Age 9

31%	Acceptable
66	Not acceptable
3	No response
100%	

Percentage including each piece of information:[1]

70%	meet Mary or meet Mary Brown
70	where: Jane's house
83	time: 6:00
68	day: tonight

---

[1] Includes responses judged acceptable and those judged not acceptable.

OVERLAP TASK 1
Administered at Age 13

(13:8-17; Exercise 203)

You are going to hear a telephone conversation between two boys, Al and Ben. During the conversation, you will discover that Ben is going to have to write a note to his mother. Listen carefully to find out the things that Ben will have to say in his note. (Students then listened to the conversation reproduced below. It was not printed in the student's booklet.)

Al: Hey, Ben, this is Al. I called you to remind you you're supposed to come down to my house for supper tonight before the game.

BEN: Oh yeah, I remember. Your mother and father are going to pick me up on the way back from the barber shop. What time do you think you'll get here?

AL: Oh, around 5 o'clock.

BEN: O.K. I'd better leave a note for my mother. She won't be home until 5:30 and maybe she's forgotten that I won't be eating at home.

AL: You'd better remind her of the ball game, too. She's supposed to pick us up afterwards, isn't she?

BEN: That's right. Your father is taking us to the game but my mother is bringing us home. Thanks for reminding me. I'll write the note right away.

You will now have another chance to hear the conversation between Al and Ben. Listen to it carefully again and then, when the boys have finished talking, write the note that you think Ben should leave for his mother.

(Approximately 1/2 page of lined space was provided for the response.)

SCORING

Acceptable: The response must

1. be a note that states that:
   a. he (Ben) is going to Al's house for dinner, and
   b. Al's father is taking them to the ball game (or the reader must be able to infer this information), and
   c. his (Ben's) mother should pick them up after the game.

Not acceptable: Omission or error in any of the above pieces of information, or copying the instructions.

OVERLAP TASK 1
Administered at Age 13
(continued)

(13:8-17)

RESULTS

Age 13

67%	Acceptable
32	Not acceptable
1	No response
100%	

Percentage providing each piece of information:[1]

84%	mention that he (Ben) is going to Al's house for dinner
81	mention or infer that Al's father is taking them to the ball game
84	mention that his (Ben's) mother should pick them up after the game

---

[1] Includes responses judged acceptable and those judged not acceptable.

OVERLAP TASK 1
Administered at Age 17

(17:10-19; Exercise 301)

You are going to hear a telephone conversation between two girls, Peggy and Carol. During the conversation, you will discover that Carol is going to have to write a note to her mother. Listen carefully to find out the things that Carol will have to say in her note. (Youngsters then listened to the conversation reproduced below. It was not printed in their booklet.)

CAROL: Hello.

PEGGY: Hello, Carol. This is Peggy. I called to remind you that you are supposed to come to my house for supper tonight before the rehearsal.

CAROL: Yes, I remember. You and your mother are going to pick me up on your way back from the store. What time do you think you'll get here?

PEGGY: Oh, about 5, I guess.

CAROL: Then I'd better leave a note for my mother. She won't be home until 5:30 and she may have forgotten I won't be eating at home.

PEGGY: You'd better remind her about the rehearsal, too. She's supposed to pick us up afterwards, isn't she?

CAROL: That's right. Your mother is taking us to the rehearsal but my mother is supposed to bring us home. Thanks for reminding me. I'll write a note right away.

You will now have another chance to hear the conversation between Peggy and Carol. Listen to it carefully again and then, when the girls have finished talking, write the note that you think Carol should leave for her mother.

SCORING

Acceptable: The response must

1. be a note that states that:
    a. she (Carol) is going to Peggy's house for dinner, and
    b. Peggy's mother is taking them to the rehearsal (or the reader must be able to infer this information), and
    c. her (Carol's) mother should pick them up after the rehearsal.

Not acceptable: Omission of any of the above pieces of information.

OVERLAP TASK 1
Administered at Age 17
(continued)

(17:10-19)

RESULTS

Age 17	
79%	Acceptable
16	Not acceptable
5	No response
100%	

Percentage providing each piece of information:[1]

85%	that Carol is going to Peggy's house for dinner
84	that Peggy's mother is taking them to the rehearsal
84	that Carol's mother should pick them up after rehearsal

---

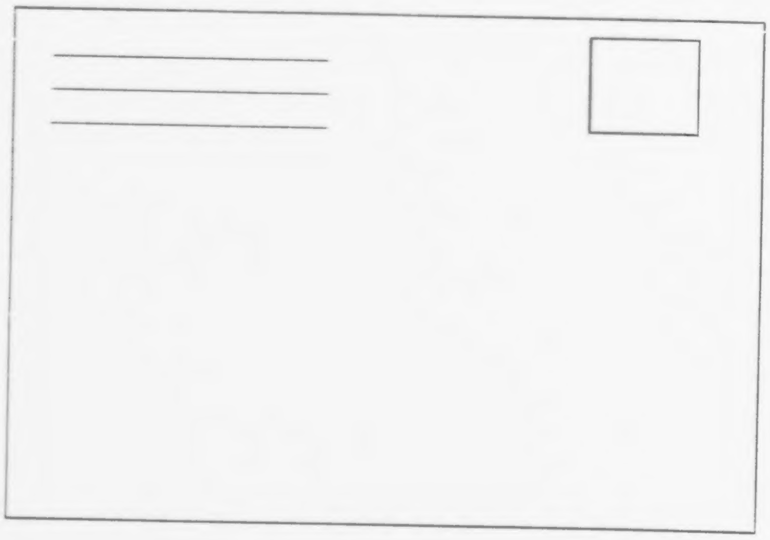
[1] Includes responses judged acceptable and those judged not acceptable.

OVERLAP TASK 2
Administered at Ages 9 and 13

(9:2-21, 13:9-19; Exercises 104 and 202)

Mary Smith lives at 100 Main Street in Hopson, Ohio. The zip code for Hopson is 45601. Mary's grandmother lives at 475 Cactus Lane in Sunshine, Arizona. Her name is Mrs. Robert Smith, and her zip code is 86001.

Pretend that Mary wants to send a letter to her grandmother. How should she address the envelope? Fill out the envelope below the way Mary should. Make sure you write down everything that should go on the envelope.



OVERLAP TASK 2
Administered at Ages 9 and 13
(continued)

(9:2-21, 13:9-19)

SCORING

Acceptable: All envelope parts had to be written in the proper places. The zip code was not required, but had to be correct if written.

Not acceptable: Any errors or blank spaces on the envelope.

RESULTS

Age 9	Age 13	
28%	78%	Acceptable
69	19	Not acceptable
3	3	No response
100%	100%	

Percentage placing each piece of information correctly:[1]

52%	89%	Mary Smith
43	85	100 Main Street
37	83	Hopson, Ohio
51	90	Mrs. Robert Smith
42	87	475 Cactus Lane
39	85	Sunshine, Arizona

---

[1] Includes responses judged acceptable and those judged not acceptable.

OVERLAP TASK 3
Administered at Age 17 and Adult

(17:8-21, Adult:1-22; Exercises 302 and 401)

When we make or do something, we usually follow certain procedures. There are certain steps to follow in baking bread, tarring a roof, cutting a pattern, painting a house, repairing a car, developing film, changing a tire, and other such activities. Choose something that you know how to make or do. In the space below, describe from the beginning the steps that you follow in order to make it or do it. Make the directions as simple and clear as possible. Someone who is not familiar with the process that you are describing should be able to understand and follow your directions.

(Approximately 1-1/4 pages of lined space were provided for the response.)

SCORING

Acceptable: The response must include all steps needed to follow the procedure. Acceptable responses were scored in one of two categories:

1) acceptable and specific: The respondent lists all important steps with specific information that would enable the reader to do the job correctly.

2) acceptable but not specific: The respondent mentions all the important steps, but does not give enough detail so that a reader would be able to do the job correctly. For example, a recipe is given, but there is no mention of how much of one or more ingredients is needed.

Not acceptable: Omitting a step necessary for the procedure, or not giving enough information for the reader to follow the procedure. For example, a description is given of how to change a tire, but it isn't stated that the emergency brake should be pulled or that the car should be put in park; or the procedure for cutting a pattern states only, "follow the directions."

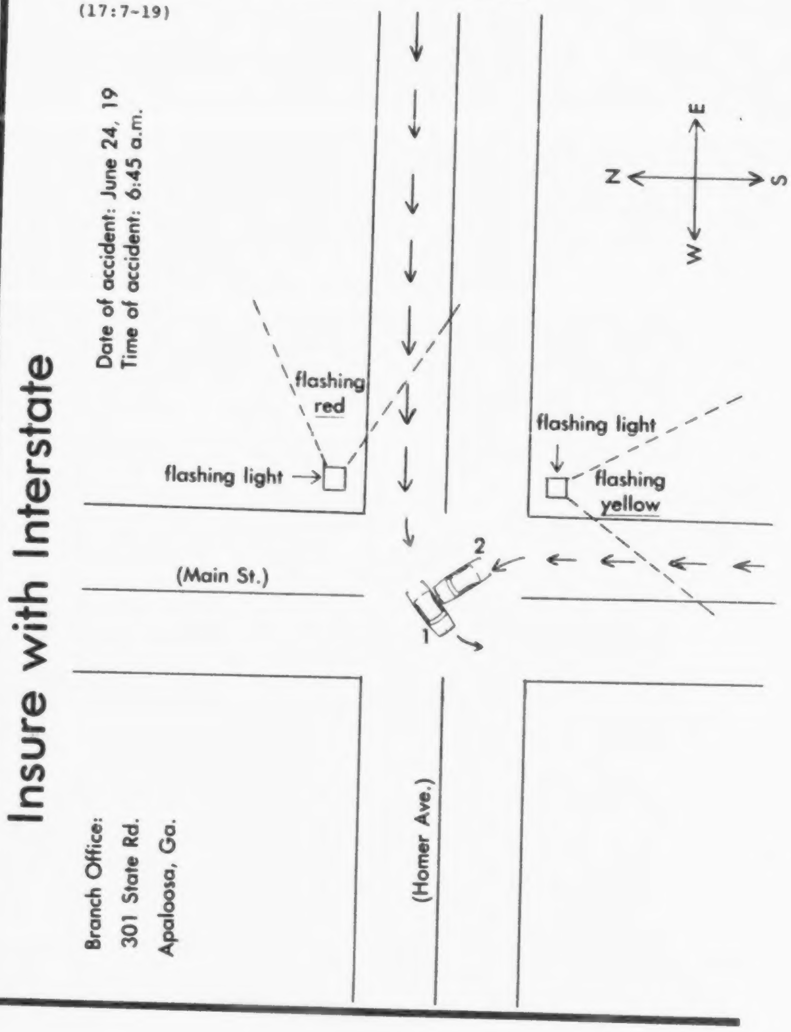
RESULTS

Age 17	Adult	
58%	37%	Acceptable and specific
17	20	Acceptable but not specific
75%	57%	Total acceptable
22%	25%	Not acceptable
4	18	No response
101%	100%	

OVERLAP TASK 4
Administered at Age 17 and Adult

(17:7-19, Adult:5-23; Exercises 303 and 402)

(17:7-19)



OVERLAP TASK 4
Administered at Age 17 and Adult
(continued)

(17:7-19, Adult:5-23)

Here is a diagram of an automobile accident. Study the diagram and then describe the accident in your own words.

(Approximately 1-1/2 lined pages were provided for the response.)

SCORING

Acceptable: The description must mention four of the following:

1) name of the street for each car
2) direction each car was traveling
3) which traffic light each one had
4) the fact that each was turning
5) the fact that a collision occurred.

Not acceptable: If the description contained a mistake, for instance, that car #1 had a yellow light or that car #2 was turning right, it was automatically counted unacceptable, no matter how good the rest of the description was.

RESULTS

Age 17	Adult	
53%	38%	Acceptable
46	52	Not acceptable
1	10	No response
100%	100%	

Objective II. Write to Communicate Adequately in a Business or Vocational Situation

The kind of writing required in one's business or vocation is on occasion quite different from that done in social situations. Four overlapping tasks were assigned to Objective II, three of which are released. The released tasks consist of an application blank to be filled out, a letter to be written to ask some prominent person to come to speak to a group, and a letter to be written to order something in response to an advertisement.

#5. Two slightly different versions of the application blank task were given at age 9, and the ones presented at the other ages were also not identical. The requirement for an acceptable response was that every blank be filled in correctly, and in order to conform to National Assessment's policy that individual respondents remain anonymous, everyone was told to use a fictitious name: Adam Baker Carson for boys and Alice Baker Carson for girls. On the two exercises administered at age 9, the percentages of acceptable responses were 16 and 12. Percentages for 13s, 17s, and Adults were 26, 61, and 50, respectively. In the case of one of the exercises given to the 9s (Exercise 105), however, the major difficulty seemed to occur in using the correct name. This leads to the suspicion that the exercise as it stands does not provide a valid measure of the ability of 9s to fill out a simple application blank. Actually, 11% of the 9s got everything right except the name, and so 27% (16% + 11%) may be a better statement of the proportion of 9s who can perform the task. Corresponding data for the other exercises are not available.

#6. The exercises for this task displayed an advertisement offering sea horses for sale. The respondent was asked to write a letter for someone who wished to order a pair. For the 13s and 17s, only the address of this person was provided; for the adults, both name and address were given. All that was required for an acceptable response was that the product wanted and the address to which it was to be sent be given. Acceptable responses were provided by 46% of the 13s, 55% of the 17s, and 49% of the adults.

#7. Both 13s and Adults were given an exercise requiring them to invite some prominent person to speak at a meeting of some group. The 13s were to invite the mayor to speak to a seventh-grade history class about his job; the adults were offered choices among several kinds of persons to invite and among several kinds of groups to be addressed. Four items had to be included in the letter for the 13s, three for the adults. These criteria were met by 27% of the 13s and 51% of the adults.

OVERLAP TASK 5
Administered at Age 9

(9:4-18; Exercise 105) (Similar to Exercise 106)

Fill in the blanks below. Do not use your own name. Each boy should call himself Adam Baker Carson. Each girl should call herself Alice Baker Carson. You may make up the rest of the information.

NAME: ______________________________
last first middle initial

ADDRESS: ______________________________
number street city or town state

ZIP CODE: ______________

DATE OF BIRTH: ______________________________
month day year

TODAY'S DATE: ______________________________

SCORING

Acceptable: Every blank filled in with appropriate information. For specific blanks, the following information was required:

1) state--one of the fifty states
2) zip code--5-digit number
3) birthday--a month or a number from 1 to 12, day, and year
4) date--month, day, and year (if a day of the week was included, the line was considered acceptable).

Not acceptable: Error in part of the application (such as writing a day of the week in the "date of birth" blank), or failing to fill in a blank.

OVERLAP TASK 5
Administered at Age 9
(continued)

(9:4-18)

RESULTS

Age 9	
16%	Acceptable
82	Not acceptable
2	No response
100%	

Percentage completing each blank whether they completed all or not:[1]

28%	correct name
70	correct order of parts of name
76	number and street or rural route
74	city or town
71	state
73	zip code
52	birthday (month, day, and year)
60	correct order of birthday
68	today's date (month, day, and year)

---

[1] Includes responses judged acceptable and those judged not acceptable.

OVERLAP TASK 5
Administered at Age 9

(9:7-19; Exercise 106) (Similar to Exercise 105)

Fill in the lines below. Do not use your own name here. Each boy should call himself Adam Baker Carson. Each girl should call herself Alice Baker Carson. You may make up the rest of the information.

1. ______________________________
first name middle initial last name

2. ______________________________
street address

3. ______________________________
city or town state zip code

4. DATE OF BIRTH: ______________________________
month day year

TODAY'S DATE: ______________________________

SCORING

Acceptable: Every blank filled in with appropriate information. For specific blanks, the following information was required:

1) state--one of the fifty states
2) zip code--5-digit number
3) birthday--a month or a number from 1 to 12, day, and year
4) date--month, day, and year (if a day of the week was included, the line was considered acceptable)

Not acceptable: Error in part of the application (such as writing a day of the week in the "date of birth" blank), or failing to fill in a blank.

OVERLAP TASK 5
Administered at Age 9
(continued)

(9:7-19)

RESULTS

Age 9	
12%	Acceptable
87	Not acceptable
2	No response
101%	

Percentage completing each blank:[1]

19%	correct name
82	correct order for name parts
76	number and street
71	city or town
71	state
67	zip code
54	birthday
55	birthday in correct order
68	today's date

---

[1] Includes responses judged acceptable and those judged not acceptable.

OVERLAP TASK 5
Administered at Ages 13, 17, and Adult

(13:11-22, 17:7-18, Adult:9-22; Exercises 206, 304, and 404)

Below is a sample application blank. Ones like it are used to get information from people who are applying for driving licenses, credit cards, passports, and other identification cards. Please print the information requested.

Do not use your own name. For this application blank, each boy (man) should call himself Adam Baker Carson. Each girl (woman) should call herself Alice Baker Carson. You may make up the rest of the information.

1. ______________________________
last name first middle initial

2. ______________________________
street address

3. ______________________________
city or town county state zip code

4. DATE OF BIRTH: ______________ 5. SEX: ________
month day year M or F

6. HT: ______ WT: ______ HAIR: ______ EYES: ______

TODAY'S DATE: ______________________

SCORING

Acceptable: Every blank must be completed with appropriate information. For specific blanks, the following information was required:

1) state--one of the fifty states
2) zip code--5-digit number
3) birthday--a month or a number from 1 to 12, day, and year

The first three lines of the application blank must be printed. There was a liberal acceptance of "funny" responses such as height--2 feet; weight--400 pounds; hair--green.

Not acceptable: Error or omission in any blank of the application.

OVERLAP TASK 5
Administered at Ages 13, 17, and Adult
(continued)

(13:11-22, 17:7-18, Adult:9-22)

RESULTS

Age 13	Age 17	Adult	
26%	61%	50%	Acceptable
72	39	44	Not acceptable
1	1	5	No response
99%	101%	99%	
			Percentage completing each blank:[1]
56%	*	62%	correct name
97		89	correct order of name
95		91	number and street or rural route
95		92	city or town
67		82	county
92		89	state
88		82	zip code
93		92	birthday (month, day, and year)
93		93	birthday in correct order
88		91	sex, height, weight, color of hair, color of eyes
93		92	today's date (month, day, and year)
62		81	printed, not written

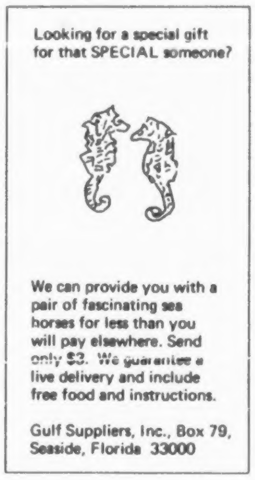
---

[1] Includes responses judged acceptable and those judged not acceptable.

*Data for this age are not yet available.

OVERLAP TASK 6
Administered at Ages 13 and 17

(13:7-18, 17:11-11; Exercises 204 and 305)



Looking for a special gift
for that SPECIAL someone?

We can provide you with a
pair of fascinating sea
horses for less than you
will pay elsewhere. Send
only $3. We guarantee a
live delivery and include
free food and instructions.

Gulf Suppliers, Inc., Box 79,
Seaside, Florida 33000

Someone who lives at 320 Random Road in Port Huron, Michigan 48121, has decided to buy a pair of sea horses. Write a letter that he (or she) can send to order them.

(Approximately one page of lined space was provided for the response.)

SCORING

Acceptable: The letter must include the following:

1) the product wanted, and
2) the sender's address

Mentioning that money was enclosed was not necessary for acceptability.

Not acceptable: Omission or error in either of the above pieces of information.

OVERLAP TASK 6
Administered at Ages 13 and 17
(continued)

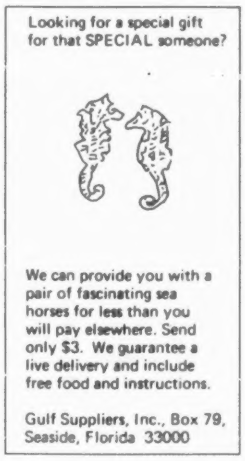
(13:7-18, 17:11-11)

RESULTS

Age 13	Age 17	
46%	55%	Acceptable
52	43	Not acceptable
2	2	No response
100%	100%	

OVERLAP TASK 6
Administered to Adults

(Adult:8-23; Exercise 405)



Looking for a special gift
for that SPECIAL someone?

We can provide you with a
pair of fascinating sea
horses for less than you
will pay elsewhere. Send
only $3. We guarantee a
live delivery and include
free food and instructions.

Gulf Suppliers, Inc., Box 79,
Seaside, Florida 33000

Lois Dressler (Mrs. Marshal P. Dressler) lives at 320 Random Road in Port Huron, Michigan 48121. She has decided to give her ten-year-old daughter a pair of sea horses for her birthday. In the space below, write the letter that you think Mrs. Dressler should write to order the sea horses.

(Approximately 1-1/4 pages of lined space were provided for the response.)

Acceptable: The letter must include the following:

1) the product wanted, and
2) the sender's address.

Mentioning that money was enclosed was not necessary for acceptability.

Not acceptable: Omission or error in either of the above pieces of information.

OVERLAP TASK 6
Administered to Adults
(continued)

(Adult:8-23)

RESULTS

Adult	
49%	Acceptable
30	Not acceptable
20	No response
99%	

OVERLAP TASK 7
Administered at Age 13

(13:5-19; Exercise 205)

The seventh-grade history classes at Saluki Junior High School in Saluki, Idaho, are studying how their local government works. The students have become so interested that they have decided to invite Mr. Carmen J. Hatch, the mayor of Saluki, to talk to them about his job.

Chris Cantor, president of the seventh grade, has the job of inviting all guest speakers to the school. Write Chris's letter of invitation to Mayor Hatch.

(Approximately 1-1/2 lined pages were provided for the response.)

SCORING

Acceptable: The letter must:

1) invite the mayor to speak to the class, and
2) suggest a topic (how local government works or about his job), and
3) give the name of the school, and
4) ask for a date or tell the mayor the date they would like for him to come. "At your convenience" is acceptable.

Not acceptable: Failure to include any of the above information.

RESULTS

Age 13

27%	Acceptable
71	Not acceptable
1	No response
99%	

OVERLAP TASK 7
Administered to Adults

(Adult:4-21; Exercise 403)

Let us say that you are an officer in a local club, business association, or church group. One of your responsibilities is to invite people to speak to your organization at one of its regular meetings. Write a letter which offers such an invitation to the mayor of your town, your township committeeman, the manager of one of your local athletic teams, a prominent educator or businessman, or any other person whom you think would be appropriate.

(Approximately 2-1/2 lined pages were provided for the response.)

SCORING

Acceptable: The letter must:

1) be a letter of invitation, and
2) include some reference to an organization that is doing the inviting and ask for or give a a date for the invitation, and
3) be appropriately constructed and acceptably written.

Not acceptable: Omitting any of the above.

RESULTS

Adult

51%	Acceptable
21	Not acceptable
28	No response
100%	

Objective III. Write to Communicate Adequately in a Scholastic Situation.

The overlapping task under Objective III asked the respondent to write an essay about some characteristic of a famous person he admired. The task was given to both 13s and 17s, and special procedures were used to provide a basis for comparing the essays of these two ages. A special reading, called the Overlap Study, was carried out for a sample of papers drawn from both age levels. A technical discussion of this study and how the essays of 13s and 17s were equated is given in Appendix D.

Examples of responses written by 13s and 17s and judged in the Overlap Study to be of comparable quality are shown on the following pages. Four levels of quality are illustrated, and the percentage of respondents who wrote an essay as good as or better than the example shown is also reported. The report thus tells not what percentage wrote a paper of one particular quality, but what percentage "did this well or better."

An attempt was made to choose examples which were of a very good quality--a level attained or surpassed by the best 15% or so of a group--and of a relatively poor quality, which was excelled by about 85%. Other examples were chosen to represent the middle range of ability. The examples actually chosen may be described as follows:

1. The high quality essays were at a level reached or exceeded by 17% of the 17s.

2. A second quality level is illustrated by essays with scores reached or exceeded by 19% of the 13s.

3. In the middle range, essays with scores reached or exceeded by about half the 17s were selected.

4. At the lowest quality level there were essays with scores reached or exceeded by 86% of the 17s.

In all cases, once the examples were chosen for one age level, examples of comparable quality for the other age were selected. It is then possible to see how 13s and 17s compare in their writing ability, or, more precisely, what percentage of respondents at each age group wrote essays as good as or better than examples of a given quality.

Figures 4-3 to 4-6 illustrate this comparison for each of the four levels of quality. The highest quality examples are labeled "1", the second level, "2", and so on. Examination of Figure 4-3 shows that more 17s than 13s wrote higher quality essays--5% of the 13s and 17% of the 17s wrote essays as good as or better than the examples of high quality. The figure also illustrates that some 13s (5% of them) wrote essays of a higher quality than 83% of the 17s. In other words, there are some 13s who write better essays than do many 17s.

To summarize the figures:

1. Of the 13s, 5% wrote essays which were as good as or better than the examples selected to represent superior quality writing, which 17% of the 17s reached or exceeded. (See Figure 4-3.)
2. Essays at least as good as the examples chosen to represent the next level of quality, which were written by 19% of the 13s, were written by 37% of the 17s. (See Figure 4-4.)
3. Essays as good as or better than the examples selected to represent the third best quality, which was reached or exceeded by 56% of the 17s, were written by 35% of the 13s. (See Figure 4-5.)
4. About an equal percentage of 13s and 17s wrote papers at least as good as those selected to represent the poorest quality of writing, as Figure 4-6 illustrates; 84% of the 13s and 86% of the 17s reached or exceeded this quality.

As might be expected, then, more 17s than 13s produce higher quality essays, although this difference becomes negligible for the poorer quality essays. And each of the figures illustrates that there is a percentage of 13s who write higher quality essays than some 17s.

PERFORMANCE OF 13S AND 17S ON THE FAMOUS PERSON ESSAY:

QUALITY 1 (HIGH)

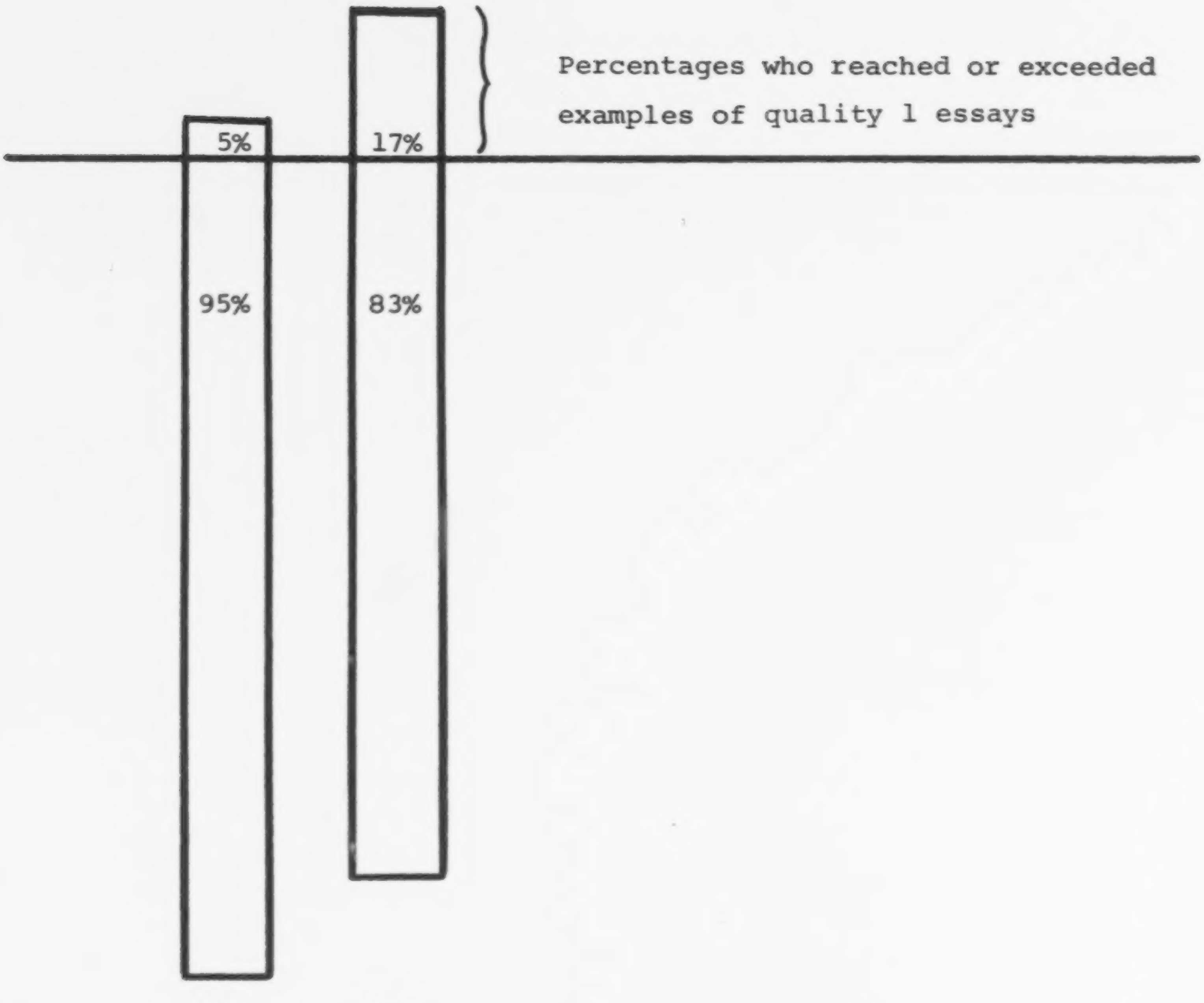


Figure 4-3

PERFORMANCE OF 13S AND 17S ON THE FAMOUS PERSON ESSAY:

QUALITY 2

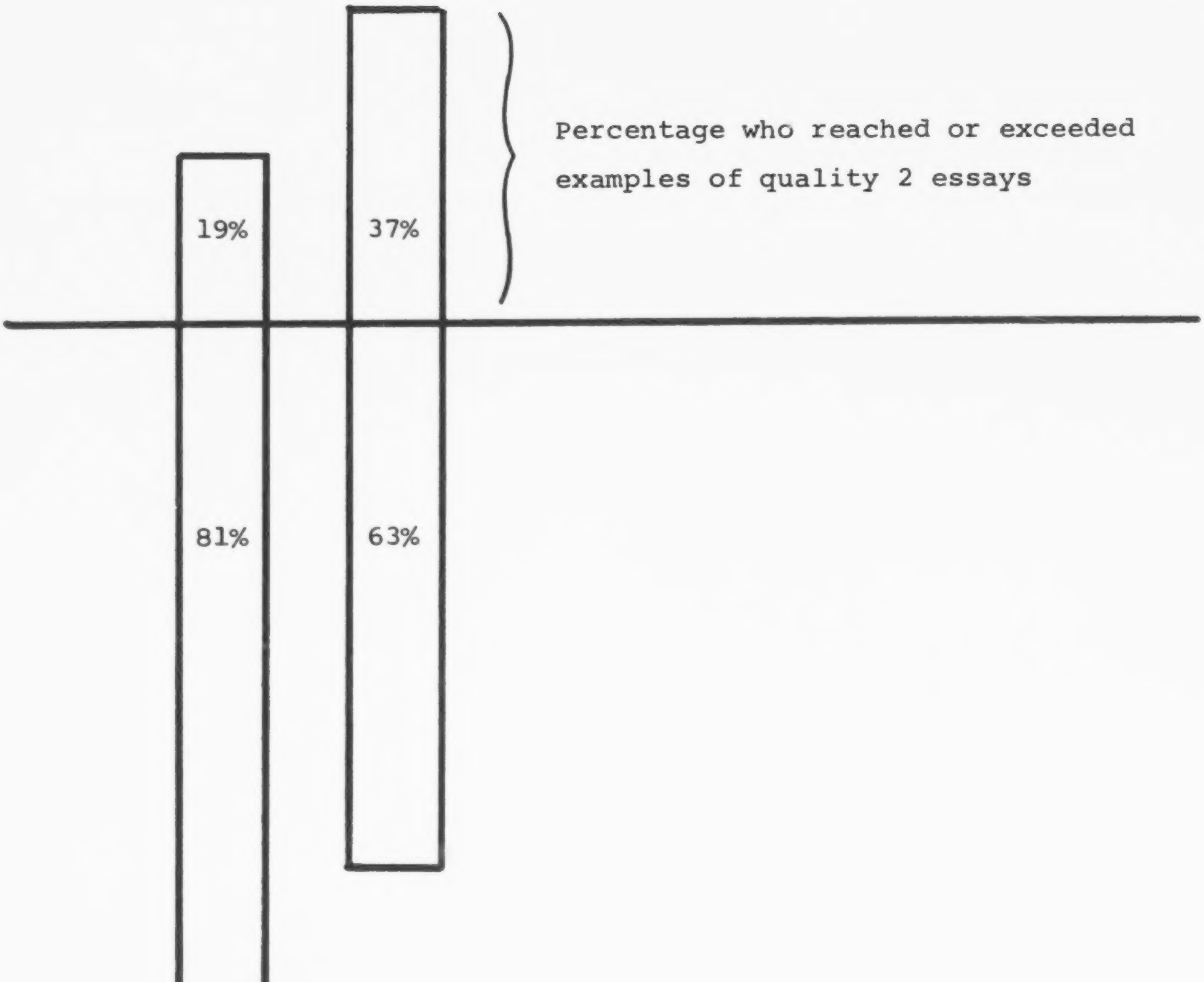


Figure 4-4

PERFORMANCE OF 13S AND 17S ON THE FAMOUS PERSON ESSAY:

QUALITY 3

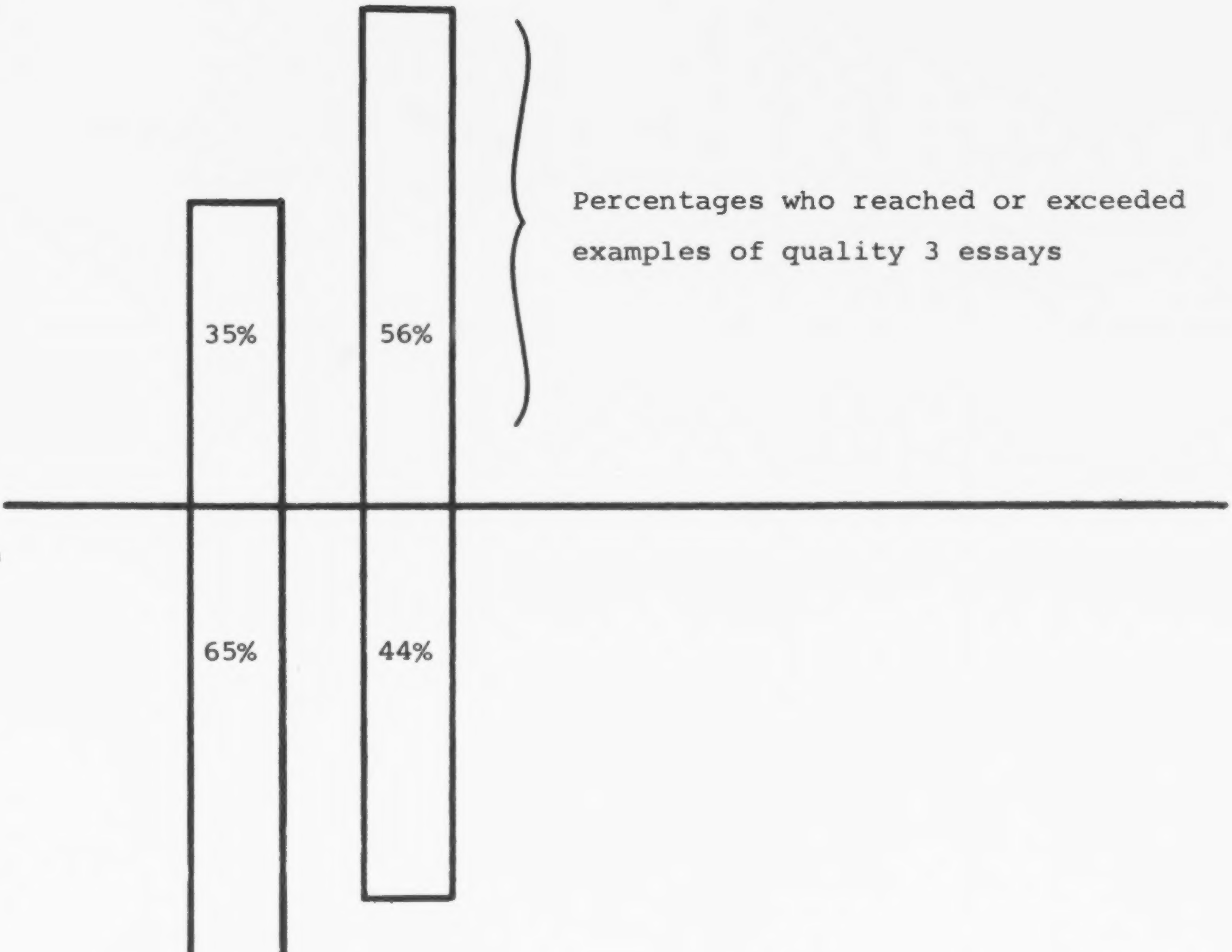


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Figure 4-5

PERFORMANCE OF 13S AND 17S ON THE FAMOUS PERSON ESSAY:

QUALITY 4

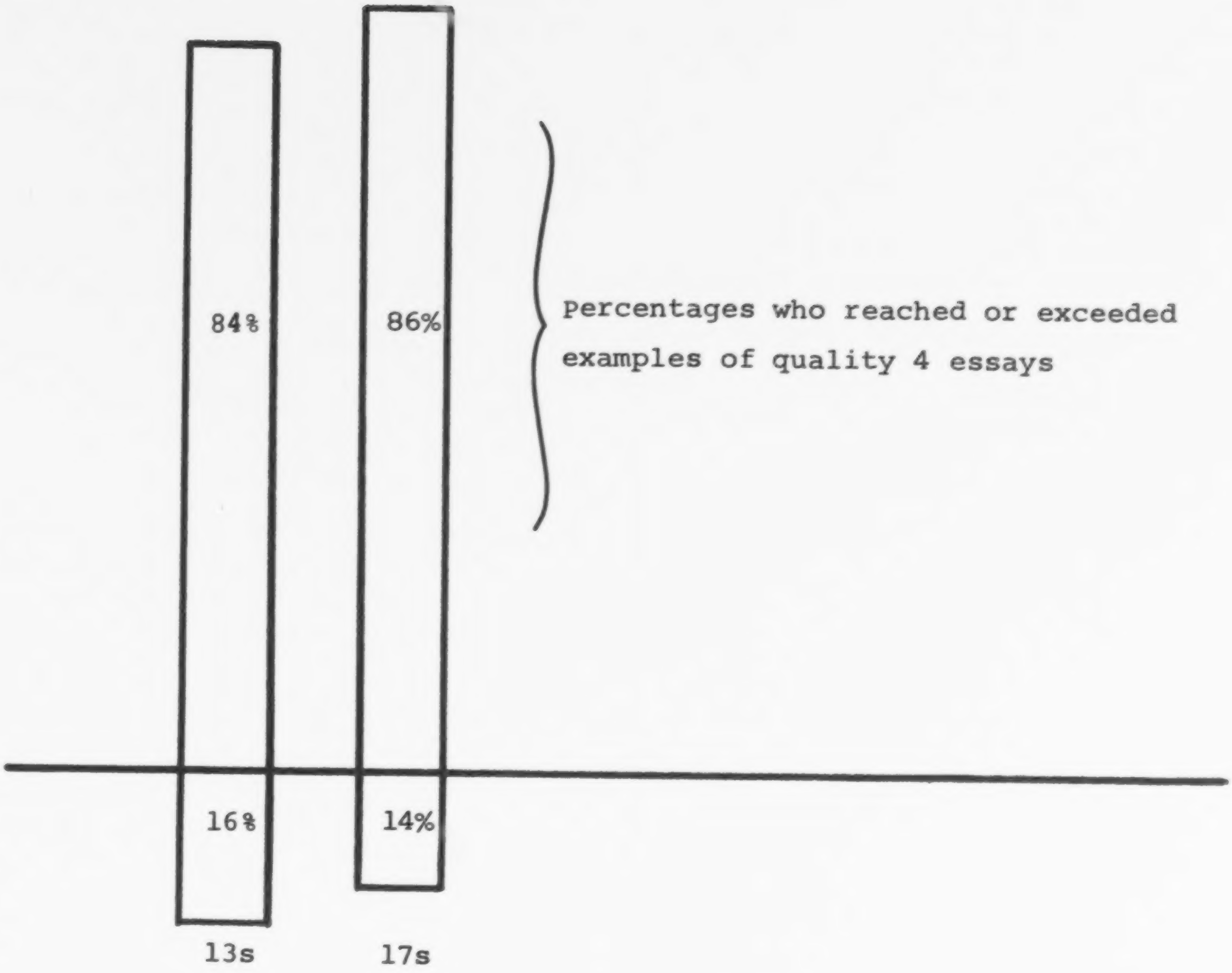


Figure 4-6

1. Below are examples of better essays written by 13s and 17s; 5% of the 13s and 17% of the 17s wrote essays as good as or better than these.

Age 13

I admire Pres. John F Kennedy for his courage and dermination, especially in the face of an emergency. This is important for a man in the position of President. He must be couragous and stand up for his conviction, as well as the convistion of the people.

If he were to panic in the face of stress and political pressure, or make a wrong decision, the whole country could be in trouble.

Courage is an admirable trait, but you don't have to fight lions to have courage. Courage is standing up for what you think is right, no matter what other people think or do. This is an important quality for a man in president Kennedys' position.

I think one of the things that best illustrate courage in President Kennedys life was the Cuban missile crissis. By standing up for our country President Kennedy proved he had courage. He didn't panic, when the Communists sent missiles to Cuba. He remained cool and told them to get their missiles out of Cuba. The Russions said they would if Kennedy got the missile sites out of Turkey. Kennedy said no, get your missles out of Cuba.

Kennedy showed strong determination in handling this crissis. He could easily have started a war by doing the wrong thing, and by standing up for his beliefs, he prevented what could have ben a Russian stronghole. He said things the way he wanted them, and he wasn't Wishy-Washy.

This kind of courage is a trait everyone should have.

Age 17

Dr. Christian Bernard: I believe he is a person worthly of looking up to. He has tried to make our life longer for us through his research and operations performed, on heart transplants. His determination to help mankind is recognized even though public opion is very much against this practice of transferring one person's heart to an another person. This determination shows how a true doctor or any kind of a scientist would work for the betterment of mankind, both for longer life or for at better and easier world to live in. Dr. Bernard shows the dedication of a true doctor, to help man when he is sick or dying, as are many of the people upon whom he operates. His determination has but him in a spotlight of doubt. But this determination makes him try to show the world that the heart is not a sacred organ of the body, and is just like any other part of the body when it needs to be repaired. This his determination to find a better method, new drugs to help after surgery, is to be admired. This one of the reasons I admire him.

Age 13 (continued)

I admire William F. Buckly Jr. He is a fantastic speaker. During campaigns such as the nineteen hundred and sixty eight presidental election, he appears on television and gives points of interest about the candidates running for office and what their policies are. During sixty eight, he appeared on nation-wide television, mostly on the republican side, and for Richard Nixon. Someone else whose name I forgot, was on the democrats side and for Hubert Humphrey. Together they debated on each candidates policies and what they stand for.

His vocabulary is really outstanding. It would be wise to have a dictionary on hand while he is giving a speech or talking.

Mr. Buckly can give a brilliant conversation on practically any matter you can bring up. On the Mike Douglas show, the audience was throwing him questions right and left. And he was throwing the answers right back at them. From ABM missle program to the latest on sport fassions, he seems to know it all.

I couldn't stress enough on his vocabulary! This is what makes him such a success. He is also an outstanding reporter. Earlier in life I believe he was a reporter for a large magazine. He is a good debater. Yes, in my opinion William F. Buckly Jr. is a great man of our times.

Age 17 (continued)

Sammy Davis Jr

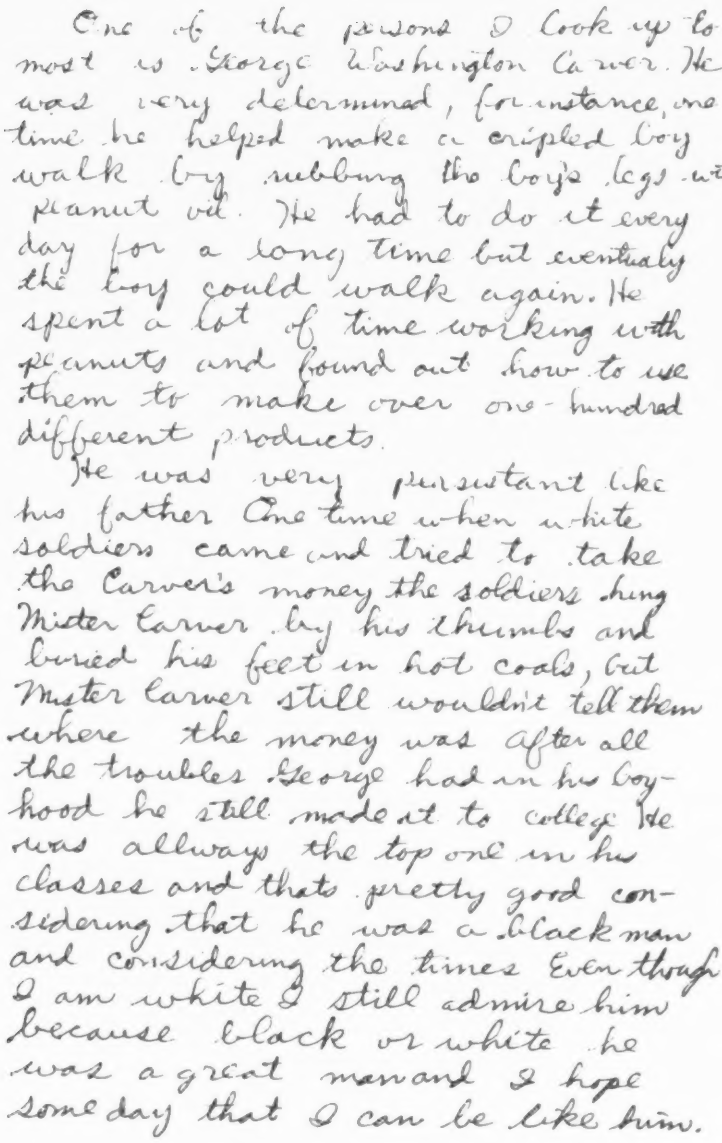
I admire Sammy Davis Jr. because his qualities are numerous both in courage and acting.

His courage comes in when he was on the road with his father and his uncle. Thats the part of him I admire the most. Without any definite job or any stationary place to sleep. He and his gaudian had plenty of determination and willpower. Sammy knew that one day he would finally reach a place among his fellowman not as a black servant but as an equal brother to all of mankind. This goal he has already achieved. He has come, all the way, through dismal days, foodless days and shelterless nights. He knows what is to suffer. He knows what it is to be hungary. But the fruits of labor can be so wonderful. Now he is a loved man among men.

Sammy Davis Jr. has the ability to sing, dance, act and make friends. Sammy has dazzled every audience he has ever performed for with his God-given talent. With all of these qualities, how can anyone do anything but admire a man like that.

2. Here are examples of high quality essays written by 13s and 17s; 19% of the 13s and 37% of the 17s wrote essays at least as good as these.

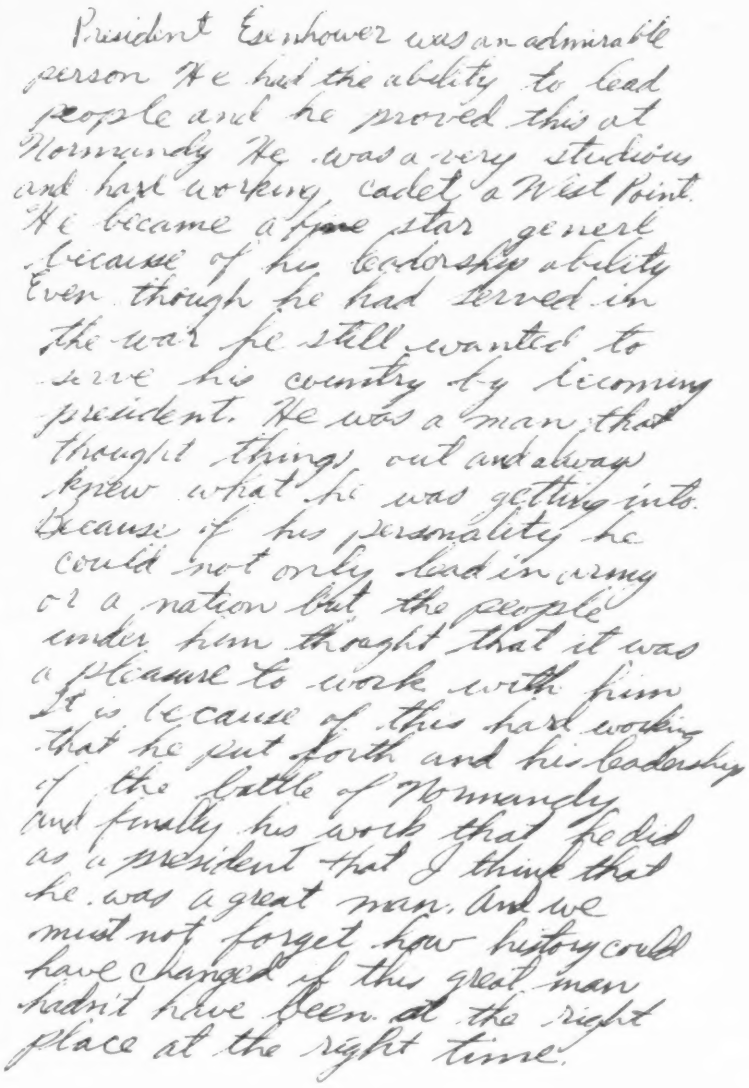
Age 13



One of the persons I look up to most is George Washington Carver. He was very determined, for instance, one time he helped make a cripled boy walk by rubbing the boy's legs with peanut oil. He had to do it every day for a long time but eventualy the boy could walk again. He spent a lot of time working with peanuts and found out how to use them to make over one-hundred different products.

He was very persistant like his father One time when white soldiers came and tried to take the Carver's money the soldiers hung Mister Carver by his thumbs and buried his feet in hot coals, but Mister Carver still wouldn't tell them where the money was After all the troubles George had in his boyhood he still made it to college He was allways the top one in his classes and thats pretty good considering that he was a black man and considering the times Even though I am white I still admire him because black or white he was a great man and I hope someday that I can be like him.

Age 17



President Eisenhower was an admirable person He had the ability to lead people and he proved this at Normandy He was a very studious and hard working cadet a West Point. He became a five star generel because of his leadership ability Even though he had served in the war he still wanted to serve his country by becoming president. He was a man that thought things out and alway knew what he was getting into. Because of his personality he could not only lead in army or a nation but the people under him thought that it was a pleasure to work with him It is because of this hard working that he put forth and his leadership of the battle of Normandy and finally his work that he did as a president that I think that he was a great man. And we must not forget how history could have changed if this great man hadn't have been at the right place at the right time.

Age 13 (continued)

John F. Kennedy was a great person in that he tried hard and didnt give up easy When he was in the war and was stranded on the island he didnt give up. Most of the other men had given up hope when they were run into. They found an island and most of the men just didnt do anything. They just layed around. He walked out to a passage to see if he could get help. He cut his feet and just about drowned but he kept his lantern held up because if he didnt have that he wouldnt have anyway of contact with the men on the island and he wouldnt have anyway of getting help either. The lantern was hard to hold because it was heavy and it was hard enough to swim alone but he held the lantern up till he passed out. After he got back to the island again he kept trying to get help. He swam to another island and found some supplies and a Japanese boat. He took some of the water & supplies back to the men on the island so they wouldnt starve which he wouldnt have had to do. He could've just saved the supplies just for himself and said it was to hard to swim back to the other island but he didnt. After he took the supplies to the men he swam back to the island where the Japanese boat was and found some natives. He gave them a note and told them to take it to the American. They did this and a couple of days later they were rescued. He wouldnt have had to do this he could have just sat on the island and done nothing and they probably would never have been rescued. If he hadnt they would have starved to death.

Sorry about the sloppy writing but I was in a hurry

Age 17 (continued)

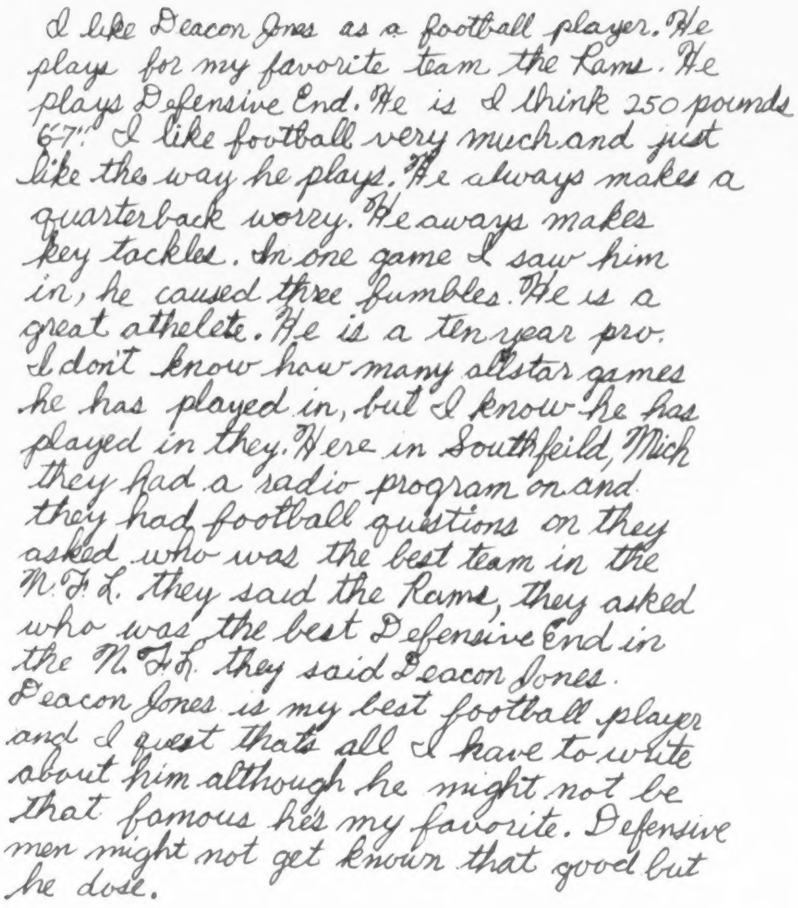
The person I have choosen is Billy Graham. He has recently made a movie called The Restless One's. In my opinion this movie will helps many young teenagers to understand the importance of having an understanding with God.

Billy Graham has the characteristic of trying to help other people. He helps many people to face many of the problem that we have today.

I think that our world needs more leaders like Billy Graham. With all of the problems we have today, the only thing we need to keep our nation together is the understanding of God.

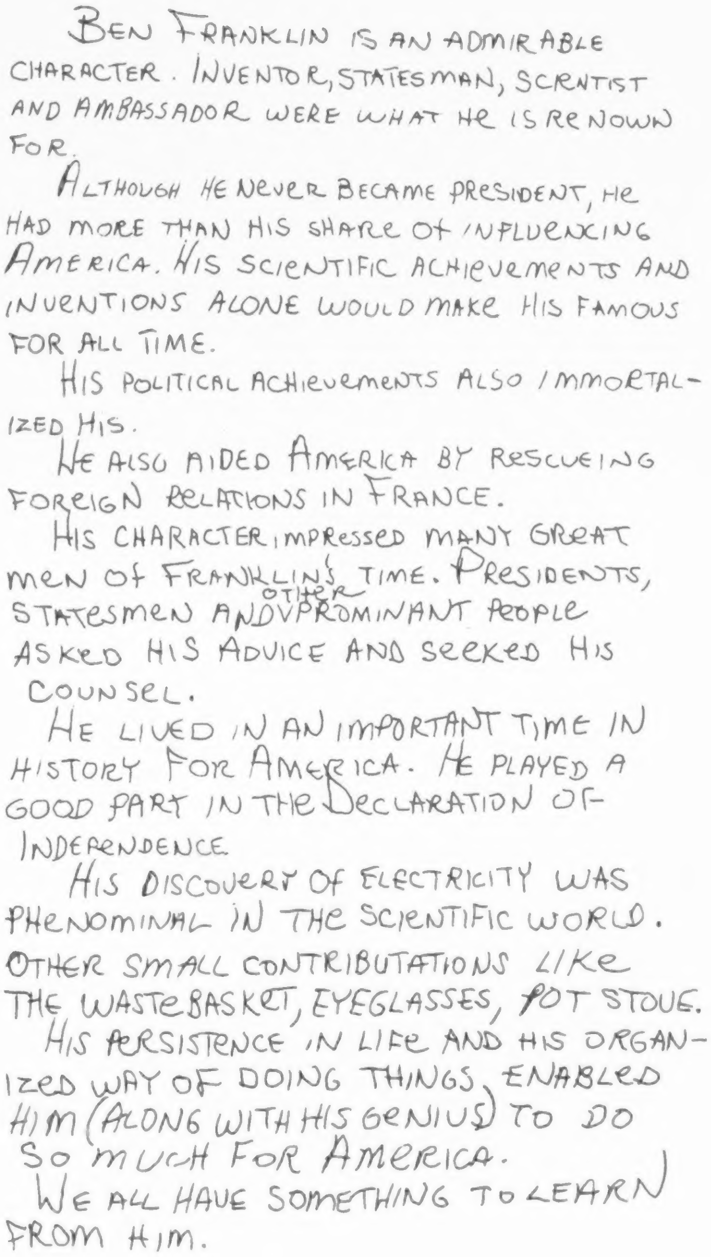
About half of the 13s and 17s wrote essays as good as or better than the ones below; 48% of the 13s and 56% of the 17s wrote at least this well.

Age 13



I like Deacon Jones as a football player. He plays for my favorite team the Rams. He plays Defensive End. He is I think 250 pounds 6'7". I like football very much and just like the way he plays. He always makes a quarterback worry. He aways makes key tackles. In one game I saw him in, he caused three fumbles. He is a great athelete. He is a ten year pro. I don't know how many allstar games he has played in, but I know he has played in they. Here in Southfeild, Mich they had a radio program on and they had football questions on they asked who was the best team in the N.F.L. they said the Rams, they asked who was the best Defensive End in the N.F.L. they said Deacon Jones. Deacon Jones is my best football player and I quest thats all I have to write about him although he might not be that famous he's my favorite. Defensive men might not get known that good but he dose.

Age 17



BEN FRANKLIN IS AN ADMIRABLE CHARACTER. INVENTOR, STATESMAN, SCIENTIST AND AMBASSADOR WERE WHAT HE IS RENOWN FOR.

ALTHOUGH HE NEVER BECAME PRESIDENT, HE HAD MORE THAN HIS SHARE OF INFLUENCING AMERICA. HIS SCIENTIFIC ACHIEVEMENTS AND INVENTIONS ALONE WOULD MAKE HIS FAMOUS FOR ALL TIME.

HIS POLITICAL ACHIEVEMENTS ALSO IMMORTALIZED HIS.

HE ALSO AIDED AMERICA BY RESCUEING FOREIGN RELATIONS IN FRANCE.

HIS CHARACTER, IMPRESSED MANY GREAT MEN OF FRANKLIN'S TIME. PRESIDENTS, STATESMEN AND OTHER PROMINANT PEOPLE ASKED HIS ADVICE AND SEEKED HIS COUNSEL.

HE LIVED IN AN IMPORTANT TIME IN HISTORY FOR AMERICA. HE PLAYED A GOOD PART IN THE DECLARATION OF INDEPENDENCE

HIS DISCOVERY OF ELECTRICITY WAS PHENOMINAL IN THE SCIENTIFIC WORLD. OTHER SMALL CONTRIBUTATIONS LIKE THE WASTEBASKET, EYEGLASSES, POT STOVE.

HIS PERSISTENCE IN LIFE AND HIS ORGANIZED WAY OF DOING THINGS, ENABLED HIM (ALONG WITH HIS GENIUS) TO DO SO MUCH FOR AMERICA.

WE ALL HAVE SOMETHING TO LEARN FROM HIM.

Age 13 (continued)

I guese my mastly admired person was abe Lincoln. I've read almost all the book these are on him.

He realy was quite a man! He worked for everything he got. He never gave up.

He'd march miles to school. all. to get an education. He had problems with his dad to let him go. to school.

He was always there and fair He was Capt. at a Camp and an indian come in and he wouldn't let then kill him.

He was a very brilliant speaker. He always had great stories to tell, and he could hold you're attention for hours.

I think ~~tho~~ the greatest thing he ever did was with the slaves I com imagine how terrible it would be to have to stand out there all day and

pick a lot of cotton. and to make it werse having some stupid cruel white man beating you.

He was so nice and he had a heart as big as an elephants! Attimes the, I wonder how that man at ford theatre could ever get the nerve to pull that trigger and kill him!

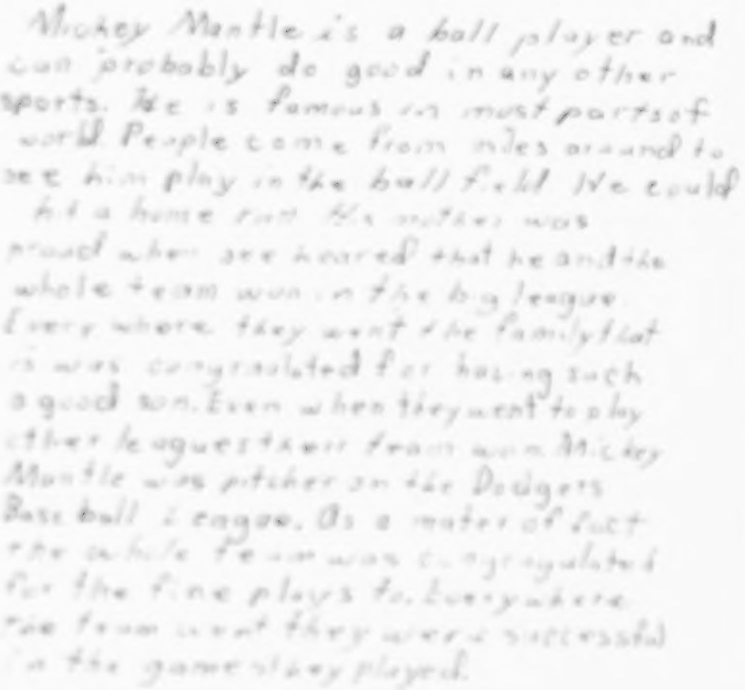
I guese tho, I'm kinda, lucky I didn't live back then! Even tho I'm not colored it probly would have been extremely hard! There's only one thing left to say. "What a Man!"

Age 17 (continued)

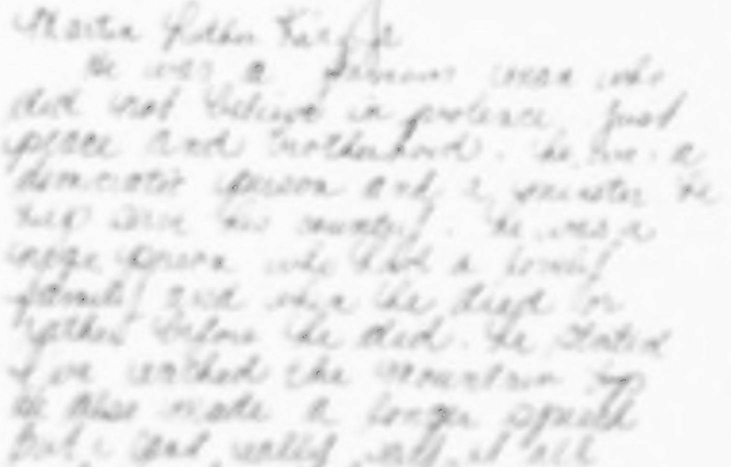
The person I admire would be Jackie Kennedy. You don't find many people like her and how well she handled herself the day her husband was shot. She showed great courage during those few days. She had managed to control her emotions and her children as well. It even took a lot of daring to find the right father for her children and give some of the things she was getting from her husband's death like the secret service and the money she was getting from her husband's death. Many people still look up to her even if she has married a man a lot older than she was but it was mostly for her children's sake that they had a father.

Most young people could write as well as the examples below: 83% of the 13s and 86% of the 17s wrote essays as good as these or better.

Age 13

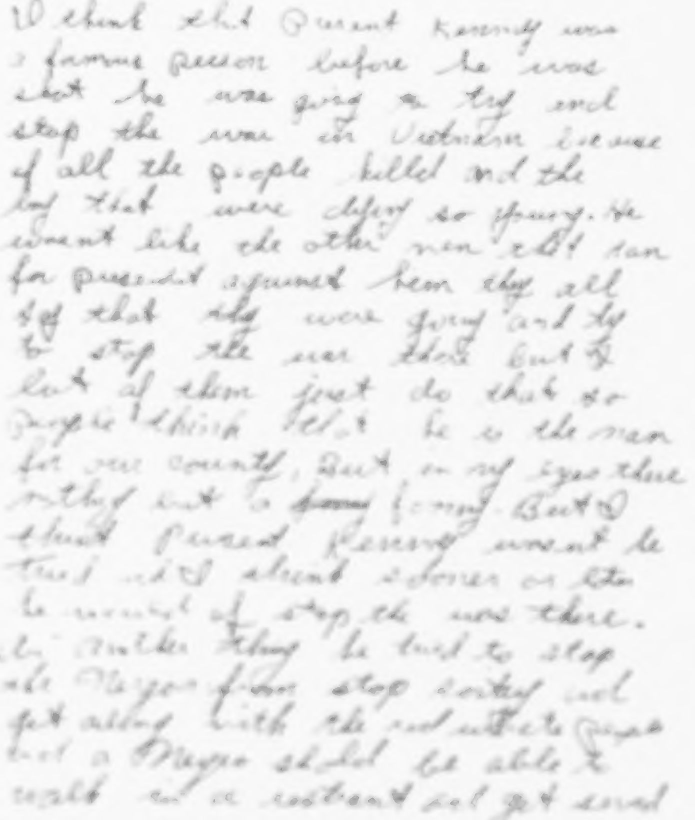


Mickey Mantle is a ball player and
can probably do good in any other
sports. He is famous in most parts of
world. People come from miles around to
see him play in the ball field. He could
hit a home run. His mother was
proud when see heared that he and the
whole team won in the big league.
Every where they went the family that
is was congraulated for having such
a good son. Even when they went to play
other leagues their team won. Mickey
Mantle was pitcher on the Dodgers
Base ball League. As a mater of fact
the whole team was congragulated
for the fine plays to. Everywhere
the team went they were successful
in the game they played.

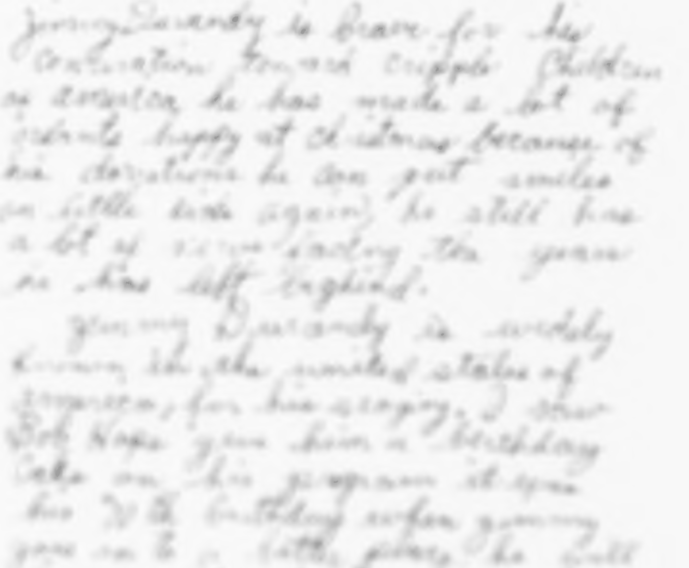


Martin Luther King Jr.
He was a famous man who
did not believe in violence, just
peace and brotherhood. He was a
democratic person and a minister. He
help serve his country. He was a
nice person who had a lovely
family and when he died or
rather before he died. He stated
I've watched the mountain top
he also made a longer speech
But I can't really say it all
and his friend Jesse Jackson was
also like him in all the fashion
good man. Kennedy, Abernathy these
were those good non-violence people

Age 17



I think that President Kennedy was
a famous person before he was
shot he was going to try and
stop the war in Vietnam because
of all the people killed and the
boy that were dieing so young. He
wasn't like the other men that ran
for president against him they all
say that they were going and try
to stop the war there but a
lot of them just do that so
people think that he is the man
for our country, But in my eyes there
nothing but a ~~funny~~ fanny. But I
think President Kennedy wasn't be
tried and I almost sooner or later
he would of stop the war there.
In another thing he tried to stop
the Negro from stop [illegible] and
get along with the [illegible] white people
but a Negro should be able to
walk in a restrant and get served



Jimmy Durante is brave for his
contrubution toward cripple children
in America he has made a lot of
parents happy at Christmas because of
his donations he can put smiles
on little kids again, he still has
a lot of [illegible] during the years
he has left England.
Jimmy Durante is widely
known in the united states of
America, for his singing. I saw
Bob Hope give him a Birthday
Cake on his program it was
his 70th birthday when Jimmy
goes on to a better place he will
leave a lot of broken hearts but
he will go on living in the hearts
of a lot of people.

Objective IV. Appreciate the Value of Writing.

The overlapping tasks assigned to this objective assessed two kinds of behavior that might testify to an appreciation of the value of writing: writing when it is not required, and writing to accomplish some purpose. Literary productions and writing done while on a trip furnish examples of the first kind; leaving messages for someone and ordering something by mail exemplify the second.

#9. The 9-year-olds were asked whether they had written, outside school, a joke, poem, report, story, or anything else, and 93% said they had done at least one. For 13s and 17s, the list consisted of poem, short story, play, article for a magazine, story for a newspaper, and words for a song. At least one of these activities was mentioned by 85% of the 13s and 84% of the 17s. The 17s, somewhat more often than the 13s, reported three or more kinds of writing.

#10. This task contained two parts, one asking whether the respondent had taken a trip in the last 12 months and the other inquiring whether the respondent had done certain kinds of writing either during the trip or afterwards. Seventy-three percent of the 9s, 87% of the 13s, and 73% of the adults reported that they had taken at least one trip. Of the groups that did take trips, 78% of the 9s, 88% of the 13s, and 71% of the adults engaged in one or more of the writing activities listed. The 13s were more inclined to produce a larger variety of writing than either of the other two ages.

#11. During the preceding 12 months, 61% of the 13s, 86% of the 17s, and 79% of the adults had left written messages for someone.

#12. Writing to order something by mail was reported by 54% of the 17s and 55% of Adults. This is one of the few exercises in which the performance of Adults was at least as good as that of 17s.

OVERLAP TASK 9
Administered at Age 9

(9:2-20; Exercise 108)

Mark any of these things that you have written outside school just for fun.

Age 9	
41%	Joke
18	Poem
17	Report
23	Story
5	Other (explain on the lines below)

(Three lines were provided for additional responses.)

Percentage who stated they had written:

93%	1 or more of the items listed
6	2 or more of the items listed
3	3 or more of the items listed
1	4 or more of the items listed
0	All 5 of the items listed
7%	None of the items listed

OVERLAP TASK 10*
Administered at Ages 9, 13, and Adult

(9:10-21, 13:12-18, Adult:1-6; Exercises 109, 208, and 407)

Age 9	Age 13	Adult	
			A. During the last 12 months, did you take any trips away from home?
73%	87%	73%	Yes (Go to B)
27	13	27	No (Go to next exercise)
			B. (If "Yes" to A) Did you
			1. send a post card while on a trip?
23	42	28	Yes
50	46	45	No
			2. write a letter telling about a trip after you got home?
25	39	27	Yes
48	48	46	No
			3. write a letter while on a trip?
17	37	15	Yes
56	50	59	No
			4. keep a diary while on a trip?
7	10	6	Yes
65	77	68	No
			5. make notes about some of the things you saw?
27	32	14	Yes
46	55	59	No
			6. write a thank-you note to someone you visited?
30	36	27	Yes
43	51	46	No
			7. write a report about a trip after you got home?
20	27	8	Yes
53	60	65	No

Percentage who responded to part B and said "Yes" to:

78%	88%	71%	1 or more questions
58	70	48	2 or more questions
36	50	26	3 or more questions
19	28	13	4 or more questions
9	12	6	5 or more questions
4	4	3	6 or more questions
1	1	1	All 7 questions
22%	12%	29%	0 (said "No" to each part of B)

*This exercise was typed double-space in the respondent's package.

OVERLAP TASK 9
Administered at Ages 13 and 17

(13:12-16, 17:10-13; Exercises 209 and 307)

Other than for a school assignment, have you ever written any of the following:

Age 13	Age 17	
		Poem
47%	64%	Yes
53	36	No
		Short Story
58	54	Yes
42	46	No
		Play
26	18	Yes
74	82	No
		Article for a magazine
10	11	Yes
89	89	No
		Story for a newspaper
11	17	Yes
88	83	No
		Words for a song
50	50	Yes
50	50	No

Percentage who stated they had written:

87%	88%	1 or more of the items listed
66	66	2 or more of the items listed
35	42	3 or more of the items listed
12	17	4 or more of the items listed
3	5	5 or more of the items listed
0	1	All 6 of the items listed
13%	10%	None of the items listed

*This exercise was typed double-space in the respondent's package.

OVERLAP TASK 11
Administered at Ages 13, 17, and Adult

(13:11-1, 17:6-17, Adult:8-4; Exercises 210, 306, and 406)

A. During the last 12 months, did you leave a written message for some person?

Age 13	Age 17	Adult	
61%	86%	79%	Yes (Go to B)
39	13	21	No (Go to next exercise)
0	1	0	No response
100%	100%	100%	

B. (If "Yes" to A) About how many times?_________*

*This information was asked as a check on part A, but is not reported.

OVERLAP TASK 12
Administered at Age 17 and Adult

(17:7-17, Adult:7-2; Exercises 308 and 409)

During the last 12 months, did you write a letter to order something through the mail?

Age 17	Adult	
54%	55%	Yes
45	44	No
0	1	No response
99%	100%	

If "Yes," about how many times?__________*

*This information was asked as a check on the above question, but is not reported.

SUMMARY

The major goals of National Assessment are to gather information about the educational attainments and attitudes of groups of Americans, and to make this information available to all who are concerned about the state of American education. The exercises reported here describe what people at four age levels know, what they can do, and what their attitudes are in one subject area, writing. Approximately 50 percent of the exercises administered to 9-year-olds, 13-year-olds, 17-year-olds, and young adults between 26 and 35 during 1969-70 are released*--46 exercises in all. These fall under four major educational objectives for writing: write to communicate adequately in (1) social, (2) business, and (3) scholastic situations, and (4) appreciate the value of writing.

Descriptions of the exercises themselves and the percentages responding successfully to them make it possible for the reader to see just what groups of people know and can do, and to form his own opinions about the significance of the levels of attainment reported. No attempt is made here to interpret the results, or to state whether they indicate that writing ability is good or bad.

In general, there are writing tasks which a large percentage of respondents at each age perform successfully. The level of success for the 9s and the 13s is high on general writing tasks--e.g., write a thank-you note or an invitation to a friend. The success level for these two ages declines, however, as more specific information is required for the response to be scored acceptable--e.g., fill out an application blank, or address an envelope.

A number of writing tasks were given at more than one age and thus allow comparisons between ages. The results show increasing skill from 9 to 13 to 17, as would be expected, but they indicate a decline from 17 to young adults. For example, when asked to write directions for making or doing something, 75% of the 17s wrote acceptable directions, while 57% of the adults did so. When asked to write a description of an automobile accident shown in a diagram, 53% of the 17s wrote descriptions which included all the necessary information, as compared to 38% of the adults.

Eight of the exercises required respondents to write essays or letters about assigned topics. The responses to these were judged for overall writing quality--including content, ability to express ideas, organization, grammatical correctness, etc. One of these was given at two ages--13 and 17. Although, strictly speaking, the other, non-overlapping exercises are not comparable, a reading of the examples of responses suggests that there is an improvement in the quality of writing with age. The results of the one overlapping essay also show this pattern--a larger percentage of 17s than of 13s wrote better quality essays. However, there are some 13s who write as well as or better than some 17s.

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* The unreleased exercises are retained to administer when writing is assessed again, allowing comparisons between the results at different times.

On several of the exercises given to Adults, a rather large proportion gave no response. An extreme example of this is the released essay-type exercise, on which 29% did not respond. This occurrence, and the generally poorer success rate of Adults on all writing exercises, might be attributed to several possibilities. Loss of skill from lack of practice, less cooperative behavior, or improvement in school programs since the young adults were in school all could be contributing factors. Another possible explanation is that the administration of adult exercises was somewhat different than at other ages. The instructions and exercises were read aloud through a tape recording to the 9s, 13s, and 17s,* but a trained administrator read the instructions and exercises to Adults. This difference perhaps worked a disadvantage for Adults.

Exercises designed to identify whether people write certain types of material indicate that a high percentage at each age do some kind of writing, ranging from postcards to words for songs.

Objective I. Write to Communicate Adequately in a Social Situation.

The writing tasks given under this objective investigate the respondent's ability to communicate information in situations of the type often met with in everyday life. The tasks varied widely in difficulty for each age. Briefly:

Asked to write a thank-you note for a gift from Grandmother, 88% of the 9s did so in an acceptable way; 35% of the 9s wrote acceptable invitations to a class play.

Thirteens were asked to write a letter inviting a friend to visit, and 91% did so in an acceptable way. Thirteens also were asked to write a letter to an imaginary pen pal. Examples were chosen to illustrate good, typical, and poor quality writing, and show rather long, detailed discussions at the upper level of quality, and very brief, uninformative letters at the lower level of quality.

Adults were asked to write a letter to an official about a proposed highway interchange, and their responses were judged for overall quality; 29% of the adults did not respond to this exercise. The letters written ranged from fairly brief ones to longer ones justifying the writer's point of view for or against the interchange.

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*This procedure was followed for exercises administered to groups. Some exercises were written to be administered by an interviewer to one individual at a time, and the taped presentation was not used.

Nines and 13s were asked to fill out an envelope with the sender's correct return address and the correct name and address of the receiver. Of the 9s, 28% included all the necessary information, while 78% of the 13s did so.

Nines, 13s, and 17s listened to a telephone conversation between two friends and wrote the note which one of the friends would have written: 31% of the 9s, 67% of the 13s, and 79% of the 17s wrote notes which included all the necessary information.

On the "envelope" and the "telephone note" tasks, from 37% to 90% of the respondents included at least one of the required pieces of information. It was when all the information was required for responses to be judged acceptable that the success rate went down.

Seventeens and Adults were asked to write the directions for doing or making something; 75% of the 17s and 57% of the adults gave acceptable directions, including all the necessary steps. Of these acceptable responses, 58% of the 17s and 37% of the adults gave steps specific enough for the reader to do the thing described; 17% of the 17s and 20% of the adults gave responses which included the necessary steps but did not explain them specifically enough for the reader to do the task described.

Seventeens and Adults were shown a diagram of an accident between two cars and then asked to write a description of it. Of the 17s, 53% included the necessary information; 38% of the adults did so.

Objective II. Write to Communicate Adequately in a Business or Vocational Situation.

Writing of this type calls for a greater degree of mechanical correctness than does social writing, and the situations are more formal.

Respondents at all four ages were asked to fill out an application form. Two forms were given to 9s, one asking for the first name first, the other for the last name first. The forms for the 9s did not ask for as much information as those at the older ages. Of the 9s, 12% filled in all the blanks of one application (first name first) correctly, and 16% filled in all the blanks of the other (last name first) correctly; 26% of the 13s completed all blanks correctly; 61% of the 17s, and 50% of the adults. The apparently low success rate at the younger ages may have resulted because all respondents were instructed to fill in the "name" blank with the name Adam (or Alice) Baker Carson, rather than with their own name. (This was done to maintain the National Assessment policy of anonymity for all participants.) Individual parts of the application were filled in by large percentages of respondents at all ages.

Thirteens, 17s, and Adults were given information for ordering a product (a pair of sea horses) and asked to write an order. Of the 13s, 46% wrote an acceptable order; 55% of the 17s did so, and 49% of the adults.

Thirteens and Adults were given information for inviting the mayor of a fictitious town to speak to some club or organization; 27% of the 13s and 51% of the adults wrote acceptable invitations.

Objective III. Write to Communicate Adequately in a Scholastic Situation.

The requirements of this type of writing call for skills outside most writing experience of daily life, and place higher standards of correctness on the written product. Adults were given no exercises under this objective, since most adults in the age level assessed would no longer be faced with this type of writing task.

Seven exercises are released under this objective, all but one of which were scored for overall writing quality. The exception asked 9s to write a notice of a pet show for their school paper; 21% wrote a notice which included the four pieces of necessary information. However, 73% included one of the four pieces of information necessary to convey the message.

A reading of the examples of the kinds of responses written by 9s, 13s, and 17s to the other essay exercises suggests that responses improve with age. Only one of the essay-type exercises was given to two age levels, 13s and 17s. Comparison of the responses to this exercise indicates that more of the older respondents write better essays than of the younger. However, there are some 13-year-olds who write essays as good as or better than some 17-year-olds. For example, 5% of the 13s wrote essays as good as or better than the examples chosen to illustrate high quality writing. Of the 17s, 83% did not write this well--in short, 5% of the 13s wrote better than 83% of the 17s.

Objective IV. Appreciate the Value of Writing.

Exercises under this objective focus on attitudes about writing and on typical writing behavior (as reported by the respondent), rather than on the quality of the performance of a respondent. All the exercises were of the multiple-choice type, which asked the respondents to read a question or statement and mark one or more of a number of alternatives presented them.

Nines, 13s, and Adults were asked if they had taken a trip during the past 12 months and, if so, if they had written any of a list of seven things--post card, letter, etc. Of the 9s, 78% of those who said they had taken a trip indicated they had written one or more of the listed things; 88% of the 13s who said they had taken a trip said they had written one or more; and 71% of the adults who said they had taken a trip said they had written one or more.

The three younger ages were asked whether they had written any of a list of things other than as a required task. The wording for 9s was different from that of the other ages, but the required task was similar. Of the 9s, 93% said they had written one or more of a list of five things; 87% of the 13s indicated they had written one or more; and 84% of the 17s said they had written one or more. Of the 9s, 41% marked that they had written a joke; 18%, a poem; 17%, a report; 23%, a story; and 5%, some other type of writing. At least 50% of the 13s said they had written a short story (58%) and had written the words for a song (50%); 47% indicated they had written a poem; 26%, a play; 11%, a story for a newspaper; and 10%, a magazine article. Of the 17s, 64% said they had written a poem; 54%, a short story; and 50%, words for a song; 18%, a play; 17%, a story for a newspaper; and 11%, an article for a magazine.

Thirteens, 17s, and Adults were asked if they had left a written message for someone during the past 12 months. Of the 13s, 61% said yes, while 86% of the 17s and 79% of the adults said yes.

Seventeens and Adults were asked if, during the past 12 months, they had written a letter to order something through the mail; 54% of the 17s said yes, as did 55% of the adults.

Three of the exercises under Objective IV did not overlap other ages:

Thirteens were asked if they thought there were any jobs that require any writing and, if so, what jobs; 89% said yes and gave an acceptable example.

Thirteens were asked if they had ever sent a story to a magazine; 17% said yes.

When Adults were given a list of reading materials and asked to indicate any they ordinarily read during the week, 95% indicated they read at least one of the items; 95% indicated they read a newspaper; 78%, a magazine; 65%, directions or instructions; 65%, personal letters; 60%, books; 49%, recipes; 46%, business letters; and 8%, some other type of reading matter.

Appendix A

DEFINITION OF GROUPS

The major reporting categories used in this report are: Age, Region, Size of Community (SOC), Type of Community (TOC), Sex, Color, and Parents' Education.

1. Age: Four age levels were assessed. Three of these were in-school--9, 13, and 17-year-olds; and two--17s and young adults--were out-of-school, sometimes referred to as the household sample. The criteria used or the operational definitions of the four ages are as follows:

    9s--Born between 1/1/60 and 12/31/60
    13s--Born between 1/1/56 and 12/31/56
    17s--In-school: Born between 10/1/51 and 9/30/52
        Out-of-school: Born between 10/1/50 and 9/30/51 and not enrolled in school in March 68 OR born between 10/1/51 and 9/30/52 and not enrolled in school in March 1969.
    young adults--Born between 7/1/33 and 6/30/43

2. Region: Four geographical regions are being used for all age levels--Northeast, Southeast, Central, and West. The states falling in each of these four regions, for reporting purposes, are as follows.

Northeast	Southeast	Central	West
Del.	Ala.	N.D.	Hawaii
Maine	Ark.	S.D.	Alaska
N.H.	Fla.	Iowa	Idaho
Vt.	Ga.	Kansas	Mont.
D.C.	Ky.	Minn.	Wyo.
Md.	La.	Mo.	Utah
N.J.	Miss.	Neb.	N.M.
N.Y.	N.C.	Ill.	Nev.
Conn.	S.C.	Ind.	Cal.
Pa.	Tenn.	Mich.	Ore.
Mass.	Va.	Ohio	Wash.
R.I.	W. Va.	Wis.	Ariz.
			Colo.
			Tex.
			Okla.

This classification is that used by the Office of Business Economics, Department of Commerce; the names for regions used by OBE differ from National Assessment names for three regions:

National Assessment	OBE
Northeast	Northern Atlantic
(Southeast)	(Southeast)
Central	Great Lakes and Plains
West	West and Northwest

3. Size of Community (SOC): The four reporting categories for SOC were (1) Big Cities, (2) Fringes around Big Cities, (3) Medium-Sized Cities, and (4) Smaller Places. They were defined as follows:

SOC Category	Description
Big Cities	All central cities of the U.S. with a population of 200,000 or greater.
Fringes around Big Cities	For each county containing a city in the Big City SOC category, the region of the county not within the city limits plus all counties within the same Standard Metropolitan Statistical Area (SMSA) as the "Big City".
Medium-Sized Cities	All SMSA counties not included in Big Cities or Fringes SOC categories plus all counties which contain at least one city of 25,000 people or more. If such a city was a part of more than one county, the county with a majority of the city population was classified here.
Smaller Places	All counties and combinations of counties with a population under 25,000 not included in the above categories.

4. Type of Community (TOC): Exploratory analysis of a substantial number of exercises for a classification into about 7 kinds of community indicated rough gradations of performance, differing from exercise to exercise, with the extreme behavior shown by two or more of (1) small places, (2) large cities, (3) suburbs. The size of community classification which was used in designing and implementing the sample, revealed this behavior, but only to a limited degree. The Type of Community (TOC) classification was developed to show more clearly how large the extreme differences in performance are.

   By classifying schools rather than counties, it was possible to identify much more uniform groups. One extreme group was selected in each of the three directions indicated by the exploratory analysis: (1) schools where high proportions of parents were farm workers and only low proportions were factory or professional workers, (2) city schools where a high proportion of parents were either not regularly employed or on welfare, and only a low proportion were professional or managerial, (3) near-city and city schools where a high proportion of parents were professional or managerial and only low proportions were factory or farm workers, not regularly employed or on relief.

   Smaller extreme groups would have been more extreme; larger extreme groups would have had better determined percentages of success. The sizes of the three extreme groups, close to 10% of all those assessed, were chosen as a compromise between more extremeness and better determination.

   (Since only schools at which assessments were made were classified, no one can draw a map showing which areas of the U.S. belong to each Type of Community group. Where such a possibility is important, the TOC grouping is inferior to the SOC grouping. To give a good idea of broad extremes, on the other hand, the TOC grouping is much more revealing than the SOC grouping.)

   The four classifications are referred to as:

1. Impoverished Inner-City
2. Affluent Suburb
3. Farm and small town
4. Remainder

The "extremes" were identified by NAEP staff using responses from questions 2 (size) and 3 (occupational level) of a questionnaire filled out by each high school principal. Questions 2 and 3 of the questionnaire are reproduced below.

Q. 2. Approximately what percentage of the students attending your school live in each of the following areas?

_____% A In a rural area (Less than 2,500)
_____% B In a town of 2,500 to 10,000
_____% C In a town of 10,000 to 25,000
_____% D In a city of 25,000 to 200,000
_____% E In the suburbs of a city of 25,000 to 200,000
_____% F In the inner part of a city over 200,000
_____% G In the residential area with the city limits of a city over 200,000
_____% H Outside the city limits of a city over 200,000 but within the residential area served by the city

100% (This column should add to 100%)

Q. 3. Approximately what percentage of the students attending your building are children of

_____% A Professional or managerial personnel
_____% B Sales, Clerical, technical or skilled workers
_____% C Factory or other blue collar workers
_____% D Farm workers
_____% E Not regularly employed
_____% F On welfare

100% (This column should add to 100%)

Computation of "Extremes"

Impoverished Inner-City:

All schools located in the inner part of a city over 200,000 OR in the residential area within the city limits of a city over 200,000 OR outside the city limits of a city over 200,000 but within the residential area served by the city were identified. (F,G,H, in Q.2) The following index was computed on the basis of responses to Q.3.

$$I_{Ic} = (E+F) - A$$

These values were then used to classify the "extreme" Impoverished Inner-City schools.*

Affluent Suburb:

All schools classified as being in the inner part of a city over 200,000 OR in the residential area within the city limits of a city over 200,000 OR outside the city limits of a city over 200,000 but within the residential area served by the city were identified. (F,G,H, in Q.2.) Then on the basis of the principal's responses to Q.3., the following index was computed:

$$I_S = A - (C+D+E+F)$$

These values were then used to classify the "extreme" Affluent Suburb schools.

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* The "cut-off values" for each TOC group are given in the table on B-6.

Farm and Small Towns:	All schools classified as being in a rural area (less than 2,500) OR in a town (2,500-10,000) were identified. (A+B in Q.2.) Then on the basis of responses to Q.3. the following index was computed $I_R = D - (C+2A)$ The values of these indices were used to determine those schools classified as coming from Farm and Small Towns.
Remainder:	All schools not classified as Farm and Small Towns, Impoverished Inner-City, or Affluent Suburb.

Note 1: There were a few instances where there was either a misclassification made by the principal, OR there was missing data, OR there was a paucity of schools selected using the index computed by the formulas described above. When this was the case, NAEP staff used their field personnel, atlases, maps, etc. to classify schools.

Note 2: In some earlier material issued by National Assessment the words "Type of Community" were used for what is here called "Size of Community."

Cut-Off Values of Indices for Defining TOC

	In-School Samples		
TOC Sub-Population	9-year-olds	13-year-olds	17-year-olds[1]
	Cut-off[2] value of Index		
Inpoverished Inner-City	.16	.17	-.07
Affluent Suburb	0	-.30	.08
Farm and Small Places	-.20	-.20	-.10

[1] The constraint with respect to Question 2 was not applied as rigorously at age 17 as the other 2 ages.

[2] Schools that had an index value greater than or equal to its cut-off value were included in the stated TOC category.

5. Sex: Data are reported for Males and Females

6. Color: Data are reported for Blacks and non-Blacks. Color classification was based on observation of the respondent at the time of the administration by the field staff member who administered the package.

7. Parents' Education: All data are reported in terms of the highest level of education of either parent or guardian of a 17-year-old respondent. Parents' Education is reported as follows:

    Level 1. Less than or equal to 8th grade
    Level 2. More than 8th grade but not a high school graduate
    Level 3. Graduated from high school
    Level 4. Some formal education beyond high school

Appendix B

STRUCTURE OF SAMPLING AND WEIGHTING*

I. Introduction

The sample for the National Assessment of Educational Progress was designed with several general objectives in mind.

(1) To represent adequately certain subpopulations specified by NAEP, including the oversampling of some of these subpopulations to obtain a more nearly balanced sample.

(2) To allow the administration of several packages of exercises with each package comprising a single survey in the usual sample design sense.

(3) To obtain precise estimates at the lowest possible cost.

(4) To allow for subsequent manipulation of the data by NAEP or its advisory committees to obtain subpopulation specific estimates on a post-definitional basis.

(5) To facilitate smooth field operating procedures and control the workload at any single sample point.

(6) To the extent possible within the above objectives, to provide for relatively simple estimation procedures.

As a result of considering these several objectives, the sample design has evolved into a stratified multi-stage design. However, most of the stages are due to the methods of administration of the packages and the oversampling of low socio-economic status (SES) 17-year-old students within schools.

Since there are several packages, several exercises per package, and several possible responses per exercise, the number of estimates which may be called for from each subpopulation is large. As an example, for seventeen-year-olds, 14 different packages were used. If each package contains an average of 15 exercises with 5 multiple choices per exercise (or equivalently, has a 5-point reporting scale), then 1050 (14 x 15 x 5) separate estimates could be computed for each subpopulation. The estimate, $\hat{P}$, will pertain to a specific exercise and a specific scale-point or category for that exercise; e.g., consider the subpopulation of all 17-year-old males in the United States and an exercise that requires a "yes" or "no" answer.

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* Prepared by J. R. Chromy and D. G. Horvitz, Research Triangle Institute.

A population parameter, P_1, is defined as follows

$$P_1 = \frac{Y}{X} \tag{1}$$

where X, the denominator, is the total number of 17-year-old males in the United States, and Y, the numerator, is the number of such males that would answer "yes" to the exercise. Similar parameters could also be defined for those answering "no," P_2, and for those answering "I don't know," P_3. Note that

$$P_1 + P_2 + P_3 = 1 , \tag{2}$$

provided each 17-year-old male would give one of the three answers.

Each of these parameters, say P_i, is estimated by first estimating the numerator, Y, and denominator, X, and then expressing the estimate, $\hat{P}$, as

$$\hat{P} = \frac{\hat{Y}}{\hat{X}} \tag{3}$$

where $\hat{X}$ and $\hat{Y}$ are the estimates of X and Y, respectively. Such an estimate is called a "combined ratio estimate" when it is applied to a stratified sample. The sample design and the estimation procedures described here provide for unbiased estimates $\hat{X}$ and $\hat{Y}$ of X and Y.

The following sections describe the sample design and associated estimation procedures at each stage.

II. First-Stage Sample Design and Estimation Procedures

A. Frame

Listing units are small geographic areas with readily identifiable boundaries. For National Assessment listing units usually consist of a county; in some cases, listing units are made up of several counties in order to meet the minimum size requirement (16,000 persons). Other listing units are parts of counties. Large central cities could thus be sampled independently of surrounding areas falling within the same county.

For National Assessment the first stage or primary sampling units (PSU's) are portions of listing units, containing approximately 16,000 persons as of the 1960 census of population. A listing unit always contains at least one primary sampling unit; some listing units contain several; e.g. the city of San Francisco is a listing unit and contains 45 primary sampling units as defined above.

Every square foot of land area in the 50 states and the District of Columbia was assigned to some listing unit. The number of primary sampling units in each listing unit was determined or assigned on the basis of the population of the listing unit. The detailed array of these listing units is called the sampling frame. This type of sampling frame is sometimes referred to as an area sampling frame.

B. Sample Size and Allocation

One of the sample design decisions was to fix the second-stage sample size per primary sampling unit. This course was taken to satisfy objective (5) in Section I above. It was decided that a sample size of 2,000 responses per exercise would provide sufficiently precise estimates at the national and regional levels. A somewhat larger sample size (about 2500 responses per exercise) was considered necessary for exercises administered in group sessions because of the higher intraclass correlation effect. Optimum cluster size was determined on the basis of minimum variance for a fixed cost assuming carefully chosen approximate cost and variance functions. These factors entered into the decision to use a sample size of 208 PSU's with 10 to 12 observations per package in each PSU.

The 208 PSU's were allocated equally to the four major regions of the U. S. with 52 being assigned to each. The next major partition of the listing units within regions was by size of community categories or strata. PSU's were allocated to the size of community strata on a proportional-to-population basis within each region. The sample PSU allocation is shown in Table 1.

Table 1

Sample PSU Allocation by Region and Size of Community

Region	Size of Community Category 1	2	3	4	Regional Totals
Northeast	15	15	15	7	52
Southeast	8	6	15	23	52
Central	12	12	12	16	52
West	15	14	12	11	52
U. S.	50	47	54	57	208

C. Stratification

Each listing unit corresponds to some identifiable land area which has associated characteristics. These characteristics were used as stratification variables.[1] As mentioned earlier, each listing unit fits uniquely into one region and one size of community category. Further stratification (labelled "serial") of the listing units was based on a combination of a listing unit income variable (percent of families earning less than $3,000) and geographic location within region. No attempt was made to guarantee that each state have at least one sampling unit.

Table 2 shows the SNP's (sample number prefixes) that result from the allocation of the sample to region, size-of-community, and location (listing unit-income groups). Allocation of the samples to the SNP's had to be disproportionate and involved some deliberate oversampling of the SNP's with low listing unit incomes, but proportionate allocation was used within SNP's.

In general, two PSU's were selected from each stratum in order to maximize the gains from stratification and yet retain the ability to compute estimates of sampling errors from the survey data without further assumptions. Whenever an odd number of PSU's was selected from some larger subset of the sampling frame, one of these PSU's was selected from a "half-stratum." Table 2 also provides data on the number of PSU's and strata for each SNP.

D. Specification of Primary Sampling Units Within Listing Units

It has been stated that each listing unit contains at least one primary sampling unit (PSU) and that the sampling frame consists of listing units which completely exhaust all the land area in the United States. The method of sample selection used was to draw one or two PSU's per stratum with equal probability and without replacement.

At first examination, it appears that the sampling frame for such a selection method should have been a list of primary sampling units. However, construction of such a list would have required extensive partitioning work within each listing unit containing more than one PSU regardless of whether that listing unit fell into the sample or not. Much unnecessary work was avoided by simply developing a rule which specified the labels or serial numbers of the PSU's within each listing unit; the rule used was simply to keep a running accumulation of the number of PSU's in the list of listing units. Table 3 illustrates this procedure. Random

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[1] The data source for characteristics of listing units was the County and City Data Book, 1967. Certain parts of the data for each county and large city were obtained from the Bureau of the Census on punched cards.

Table 2

Primary Sampling Units by SNP

Sample Number Prefix (SNP)			Total Number of PSU's	Number of PSU's in Sample	Number of Strata
Region*	S.O.C.**	Serial	N	n	***
1	1	1	275	5	2†
1	1	2	38	2	1
1	1	3	124	4	2
1	1	4	77	2	1
1	1	5	33	1	†
1	1	6	41	1	†
1	2	1	870	15	7†
1	3	1	155	5	2†
1	3	2	645	10	5
1	4	1	57	2	1
1	4	2	275	5	2
			(2590)	(52)	
2	1	1	361	8	4
2	2	1	288	6	3
2	3	1	120	5	2†
2	3	2	545	10	5
2	4	1	161	7	3†
2	4	2	760	16	8
			(2235)	(52)	
3	1	1	564	8	4
3	1	2	43	2	1
3	1	3	66	2	1
3	2	1	738	12	6
3	3	1	140	4	2
3	3	2	616	8	4
3	4	1	150	5	2†
3	4	1	682	11	5†
			(2999)	(52)	
4	1	1	451	11	5†
4	1	2	42	3	1†
4	1	3	32	1	†
4	2	1	360	9	4†
4	2	2	205	5	2†
4	3	1	66	3	1†
4	3	2	450	9	4†
4	4	1	60	3	1†
4	4	2	288	8	4
			(1954)	(52)	
			(9778)	(208)	

---

* The first digit of the sample number designates the region as: (1) Northeast; (2) Southeast; (3) Central; or (4) West.

** The second digit of the sample number designates the size of community (S.O.C.) stratum as: (1) central cities with a 1960 population of 180,000 or greater; (2) metropolitan areas around these (S.O.C. 1) cities; (3) other metropolitan areas and other counties containing a city with 15,000 or more persons in 1960; and (4) all remaining areas.

*** The symbol "†" indicates a "half-stratum."

Table 3

Illustration of Primary Sample Selection Procedure

Listing Unit Name (A)	1960 Population (B)	Number of Primary Sampling Units Assigned To Listing Unit (C)	Number of Primary Sampling Units Assigned Accumulated (D)	Labels Assigned to PSU's in Listing Unit (E)	Random Numbers Selected (F)
Bergen, N. J.	780,254	48	48	1 to 48	24
Middlesex, N. J.	433,856	27	75	49 to 75	
Broome, N. Y.	212,661	13	88	76 to 88	79
New Castle, Del.	307,446	19	107	89 to 107	
Mercer, N. J.	266,392	16	123	108 to 123	

selections of one or two labels were made from random number tables.[2] It was then possible to identify the listing units involved in the sample, since these were the ones containing the selected labels. It was not necessary to partition or construct PSU's within any other listing units. In the example given in Table 3, the listing units of Bergen County, New Jersey and Broome County, New York were selected by the random numbers 24 and 79, since the corresponding labels are included in those assigned to the PSU's for these listing units.

Within selected listing units, PSU's were constructed in one-to-one correspondence with the labels assigned to the listing unit. Since the label selected was known, the assignment of the labels to the PSU's was accomplished in an unbiased fashion by using a table of random permutations.[3]

This method of selecting and forming PSU's is particularly adaptable to National Assessment, since four different age-defined target populations must be sampled: 9-year-olds, 13-year-olds, 17-year-olds, and young adults between the ages of 26 and 35. For the young adult sample, the primary sampling unit can be defined as an area unit just as the listing unit has been defined as an area unit, since this target population will be sampled by means of a household survey. The same principle holds for 17-year-olds who have completed or dropped out of high school. Nine-year-olds, 13-year-olds, and in-school 17-year-olds are sampled through their schools. Therefore, a list frame of schools within each selected listing unit must be used to construct the primary sampling units for these student populations; the PSU's for the different age groups will not normally coincide since the enrollment of students of a particular age depends upon the grade range taught at each school.

A general rule followed in the formation of PSU's within listing units was to form heterogeneous clusters with particular emphasis placed on representing some of both the high and the low socio-economic status populations within the listing unit.

E. The Out-of-School Sample

As indicated above, the same basic primary sample design applies to both the in-school and out-of-school (household) samples. The difference between the two primary samples is that the PSU in the school sample is defined in terms of persons enrolled in school and belonging to certain age groups while the PSU in the household sample is defined in terms of the household population belonging to certain age groups.

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[2] The RAND Corporation, A Million Random Digits.

[3] Moses and Oakford, Tables of Random Permutations.

The target populations for the household sample are:

(1) Adults 26-35.

(2) Out-of-school seventeen-year-olds.

In both the in-school and out-of-school samples, the primary sample consisted of a stratified random sample of 208 PSU's. The same random draw was used to select PSU's in both samples; however, the ultimate definition of each PSU was achieved by different methods because of different definitions of the target populations.

F. Estimation Procedures at the First Stage

Consider again the estimation of some population parameter, P, which refers to a particular target population and a particular category of response on a single exercise. The following parameters are defined for the i-th PSU within the h-th stratum:

X_{hi} = the number of persons in the target population in the i-th PSU of the h-th stratum, and

Y_{hi} = the number of such persons that choose a particular response category to the exercise.

These parameters are related to X and Y in Section I (Introduction) by the relations

$$X = \sum_{h=1}^{L} \sum_{i=1}^{N_h} X_{hi} \text{ , and} \qquad (4)$$

$$Y = \sum_{h=1}^{L} \sum_{i=1}^{N_h} Y_{hi} \qquad (5)$$

where N_h is the number of PSU's within the h-th stratum and L is the total number of strata.

If X_{hi} and Y_{hi} were determined for each PSU selected in the sample, the population parameters X and Y would be estimated by $\hat{X}$ and $\hat{Y}$, respectively as:

$$\hat{X} = \sum_{h=1}^{L} \frac{N_h}{n_h} \sum_{i=1}^{n_h} X_{hi} \text{ , and} \qquad (6)$$

$$\hat{Y} = \sum_{h=1}^{L} \frac{N_h}{n_h} \sum_{i=1}^{n_h} Y_{hi} , \qquad (7)$$

where n_h is the PSU sample size for the h-th stratum.

Since not all eligible persons in a PSU are included in the sample, and since, for the most part, each person in the sample responds to only one package, the parameters X_{hi} and Y_{hi} will not be determined exactly. Instead, these parameters have to be estimated on the basis of data collected from a small subsample of the total PSU. The subsampling procedures and related within-PSU estimation procedures are discussed in Section III. If the estimates of X_{hi} and Y_{hi} are denoted by $\hat{X}_{hi}$ and $\hat{Y}_{hi}$, respectively, formulas (6) and (7) can be restated in terms of the PSU estimates as

$$\hat{X} = \sum_{h=1}^{L} \frac{N_h}{n_h} \sum_{i=1}^{n_h} \hat{X}_{hi} , \text{ and} \qquad (8)$$

$$\hat{Y} = \sum_{h=1}^{L} \frac{N_h}{n_h} \sum_{i=1}^{n_h} \hat{Y}_{hi} . \qquad (9)$$

The combined ratio estimate of P can then be written as

$$\hat{P} = \frac{\hat{Y}}{\hat{X}} = \frac{\sum_{h=1}^{L} \frac{N_h}{n_h} \sum_{i=1}^{n_h} \hat{Y}_{hi}}{\sum_{h=1}^{L} \frac{N_h}{n_h} \sum_{i=1}^{n} \hat{X}_{hi}} \qquad (10)$$

G. Sub-Population or Domain Estimates

It should be noted that formula (9) above is equally applicable to an aggregate population estimate or to any subpopulation estimate as long as the $\hat{Y}_{hi}$ and $\hat{X}_{hi}$ are defined with respect to the subpopulation or domain of interest. The subpopulations may be defined in advance of sampling or in an after-the-fact manner. Usually the sample size for a specific subpopulation will itself be a random variable. Hartley presents the theory of mean and variance estimation and gives appropriate formulas under several sample designs.[4]

The parameters, X_{hi} and Y_{hi}, may both be equal to zero for several PSU's if these PSU's do not contain any members of the subpopulation of interest. The sample estimates, $\hat{X}_{hi}$ and $\hat{Y}_{hi}$, may be equal to zero for this same reason, and they may also be equal to zero in some PSU's due to sampling even when the associated parameters X_{hi} and Y_{hi} are not equal to zero. Some restraint must be exercised in defining subpopulations of interest to insure that at least some of the $\hat{X}_{hi}$ are non-zero. An examination of the sample size and variance with respect to each subpopulation estimate will provide guidance for defining subpopulations after the fact for which appreciably precise estimates are possible.

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[4] Hartley, H. O. (1959), "Analytic studies of survey data," Instituto di Statistica, Rome, volume in honor of Corrado Gini.

III. Second-Stage Sample Design and Estimation Procedures

A. The Sampling Problem Within the PSU

The requirements placed on the sample design within each PSU for the National Assessment of Education differ in several ways from those usually considered in designing a multi-stage survey. The most distinctive features involve the use of several packages combined with the requirement that a probability subsample be used for each package. This amounts to simultaneously designing samples for several separate surveys and constructing estimates for each of these surveys. Moreover, in the school sample, administration modes of the packages differ. The within-PSU sample design for packages administered to group sessions differs from the sample design for packages administered individually.

B. The In-School Sample

1. The sample design

An additional constraint on construction of PSU's was that at least two schools should be involved in the sample within each PSU. Generally, PSU's within listing units have been formed so as to constitute a heterogeneous sample of the listing unit. The number of schools associated with each PSU was minimized subject to the above constraint and the requirements that all elementary and secondary schools (public and private) be included in the sampling frame as part of some PSU for each age-specific target population.[5/]

Although the actual size of PSU in terms of number of students of a specific age-group will vary from PSU to PSU and can only be determined after the fact, a target PSU size of 250 to 350 students in each age-group was expected in each PSU based on the general population data used in constructing the sampling frames. Random subsamples of the 250 to 350 students in each of the three age-groups actually participated in National Assessment. Since the PSU size is limited and each PSU must involve at least two schools for each age-group, some large schools contribute to several PSU's. As an example, a school with 900 17-year-old students might contribute 150 students to the construction of each of 6 different PSU's. The definition of a particular PSU involves a list of schools. For each school listed, a special factor, S , is computed which indicates the proportion of that school belonging to the PSU. An example of such a listing is shown in Figure 1. The school factor, S , for each school is shown in column 10 of Figure 1.

[5/] Schools listed as teaching a grade span with an upper limit no higher than the eighth grade were assumed to contain no 17-year-old students.

SAMPLE SCHOOLS SELECTED

Sample Number 111011
State State Name
County(ies): County Name
Number of SU's Assigned to LU 10
Average Number of Approximated 17-Year-Olds per 1/2 SU 145

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
School Code	Zip Code	School Name	School Address	School Principal	Grades Taught	Est. # 17's in School	# of 1/2 SU's Assigned to		Ratio of Col. (9) to Col. (8)	Poverty Index
							School	SU		
1	90002	Public No. 21	----------	---------	K-12	870	6	1	.17	H
2	91105	Private School 1	----------	---------	9-12	145	1	1	1.00	L
3	84821	Public No. 5	----------	---------	K-8	0	--	--	1.00	M

FIGURE 1. An Example of a PSU School List

Whenever school personnel in the 17-year-old sample were willing to do so, they were asked to preclassify the eligible students on a judgment basis into two SES classes: (1) the lowest one-third and (2) the upper two-thirds. This information was used to more nearly balance the sample by SES class within schools through oversampling of the first category. Alternate sets of sampling instructions were used by field personnel in selecting respondents depending upon whether this additional information was provided by the school. This further classification and oversampling of the low SES students was not used in the 9- and 13-year-old samples.

2. Package assignment

An important part of the sample design was the method of assigning specific packages of exercises to schools in the sample. The sample design allowed every school with some enrollment of 9-year-olds, 13-year-olds, or 17-year-olds to come into the sample with a positive probability. Two different methods of package administration were used in the school sample:

(a) Group package administration to groups of 12 students

(b) Individual package administration

In addition, a special group interaction package was administered in a subsample of 32 PSU's by specially trained administration teams. The number of packages by type and by in-school age groups and the planned sample size per package are shown in Table 4.

Current-year estimates of enrollment for the sample age group were obtained in each sample school by field personnel on their first visit to each PSU. The package assignment procedure was then performed by central office sampling staff using a special random permutation procedure. By ranking schools in each PSU on the basis of an SES index and using a random permutation of group package numbers to assign packages to schools in the first PSU of a stratum and then using the same random permutation in reverse order to assign packages to schools in the second PSU in a stratum, some balance in the distribution of each package sample by SES was obtained. Specific instructions for the selection of students for each package were sent to field personnel prior to assessment week in each PSU.

3. Estimation

In the i-th PSU of the h-th stratum, estimates, $\hat{X}_{hi}$ and $\hat{Y}_{hi}$, are needed for formula (10) in Section II. These values are estimated on the basis of 12 responses for group package exercises and 9 responses for individual package exercises. For the j-th respondent to a package in the PSU and a specific target population estimate of P

Table 4

Package Types and Sample Sizes

Type of Package	Number of Packages			Planned Sample Size/Package	
	9's	13's	17's	PSU's	Students
Individually administered	2	3	2	208	1872
Group administered	8	9	11	208	2496
Special group	1	1	1	32	1536

for a particular response category to a given exercise, the following variables are defined:

x_{hij} = 1 if the j-th respondent belongs to the target population

0 otherwise

y_{hij} = 1 if $x_{hij}=1$, and the respondent chose the particular response category to the exercise

0 otherwise.

The PSU values X_{hi} and Y_{hi} are then estimated as

$$\hat{X}_{hi} = \sum_j \frac{x_{hij}}{P_{hij}} \text{, and} \tag{11}$$

$$\hat{Y}_{hi} = \sum_j \frac{y_{hij}}{P_{hij}} \tag{12}$$

where P_{hij} is the conditional probability of including the j-th respondent in a particular package sample given that the i-th PSU has been selected.

For group packages, the values P_{hij} depend upon three factors: (1) the number, G_{hij} , of group packages assigned to the respondent's school for the i-th PSU; (2) the number, R_{hij} , of eligible students in the respondent's school; and (3) the school factor, S_{hij} , as defined above, denoting the proportion of the school belonging to the i-th PSU.

For group packages, all 12 respondents generally came from one school. An individual's probability of selection for a group package for 17-year-old's, for example, where 11 group packages were used, is expressed as

$$P_{hij} = \left(\frac{G_{hij}}{11}\right)\left(\frac{12}{R_{hij}S_{hij}}\right) \tag{13}$$

if SES preclassification had not been done, or

$$P_{hij} = \left(\frac{G_{hij}}{11}\right)\left(\frac{6}{R_{hij}S_{hij}}\right) \tag{14}$$

if SES preclassification had been done. In formula (13), R_{hij} represents the number of eligible respondents in the school since it assumes no preclassification. In formula (14), R_{hij} represents an SES preclassification category within the school. Similar formulas to (13) and (14) are used for the appropriate P_{hij} for individual package respondents.

Respondents to individually administered packages generally came from several schools. The computation of the probabilities is somewhat more complex depending upon the method of assignment. In both cases, the appropriate expansion factor or weight, w_{hij} , for each response consists of two parts as follows:

$$w_{hij} = \frac{1}{P_{hij}} = \alpha_{hij} R_{hij} \tag{15}$$

where α_{hij} is the part of $(1/P_{hij})$ computed in advance by the central office staff based on the methods of constructing PSU's and of assigning packages, and R_{hij} is the number of eligible students in the j-th student's school (and SES preclassification category if done).

The complete estimation formula assuming the planned sample sizes are realized is

$$\hat{P} = \frac{\sum\limits_{h=1}^{L} \frac{N_h}{n_h} \sum\limits_{i=1}^{n_h} \sum\limits_{j} \alpha_{hij} R_{hij} y_{hij}}{\sum\limits_{h=1}^{L} \frac{N_h}{n_h} \sum\limits_{i=1}^{n_h} \sum\limits_{j} \alpha_{hij} R_{hij} x_{hij}} \tag{16}$$

In some cases fewer respondents actually participated in a particular package within a school than the planned sample size, n_{hij} , for that school. In order to utilize the n_{hij} as computed in advance, a correction factor, f_{hij}, was computed to correct for the within school non-response. This was computed as

$$f_{hij} = \frac{n_{hij}}{n'_{hij}} \qquad (17)$$

where n_{hij} is the planned package sample size and n'_{hij} is the realized package sample size within a school. Note that if things proceeded as planned, the factor f_{hij} is equal to one and does not alter the calculation.

C. The Out-of-School Sample

1. The sample design

As discussed previously, each primary sampling unit in the household sample was defined within a larger geographic unit called a listing unit. The listing unit consisted of a contiguous land area bounded by county boundaries, city limits, or town boundaries (New England States). Generally, it was a county, a part of a county, a large city, or a combination of two or more such units.

The average size of a PSU was planned at about 16,000 persons. Large listing units contained several PSU's. Each individual PSU in the household sample was further defined as a systematic sample of secondary sampling units (SSU's) within the listing unit. For example, if a listing unit had a 1960 population of 46,000 persons, it was assigned three PSU's in the process of developing the sampling frame for primary sample selection. All SSU's in the listing unit were listed in a single or combined list; the ordering of the list was predetermined by the second stage stratification variable discussed in the next paragraph. The first of the three PSU's assigned to the listing unit was defined to consist of the 1st SSU, 4th SSU, 7th SSU, etc. in the combined SSU listing; the second PSU consisted of the 2nd SSU, 5th SSU, 8th SSU, etc.; the third PSU consisted of the 3rd SSU, the 6th SSU, 9th SSU, etc.

The secondary sampling units were defined to be clusters of 35 to 40 housing units on the average. Each SSU was expected to yield about 12 1/2 eligible adult respondents. Initial plans called for the selection of 10 SSU's per PSU. Stratified random cluster sampling was used to select these 10 SSU's. Local area SES data (percent of families earning less than $3,000) at the census tract or minor civil division level was used to order the list of smaller geographic areas within the listing unit by increasing income level. The stratification was then applied to the ordered list. The low SES end of the list (the one fourth with lowest income) was sampled at twice the rate of the remaining part of the list.

The basic within-PSU secondary sample stratification involved 5 secondary strata. Two sample elements were selected at random without replacement from each stratum. The first two strata were smaller than the remaining strata to effect the over-sampling of the low income or low SES population. The stratification is illustrated in Table 5 for a PSU with 152 SSU's.

2. Package assignment

Ten packages of exercises were compiled for the out-of-school adult sample, each containing a different subset of the exercises. To eliminate any excessive burden on individuals asked to participate, only one of the ten packages was administered to each adult respondent.

As eligible adult respondents were identified in the household screening process, each one was asked to complete a different package in package number sequence. A different starting package in the sequence was used in each of the 10 segments, so that all packages would be administered about the same number of times. As an example if the starting package in an SSU was 7, packages were assigned to respondents in the following order: 7, 8, 9, 10, 1, 2, 3, ...

Thirteen different packages were used for seventeen-year-olds. Each out-of-school seventeen-year-old was asked to respond to a set of 4 or 5 packages (two sets were made up of 4 packages; one set was made up of 5 packages); out-of-school seventeen-year-olds were given an incentive payment of ten dollars for completing the set of packages.

3. Estimation

Since all eligible respondents in each SSU (cluster of housing units) are in the sample, the probability of selecting a particular individual is the probability of selecting the SSU of which he is a member, or simply, (n_{hij}/N_{hij}) , where

N_{hij} = number of SSU's in the j-th secondary stratum of the i-th PSU of the h-th primary stratum.

n_{hij} = number of SSU's sample in the j-th secondary stratum of the i-th PSU of the h-th primary stratum.

The observations of a respondent on a particular exercise in a particular package are coded as:

Table 5

Example of Secondary Stratification and Sample Allocation of the Basic Household Sample

Secondary Stratum Number j	Number of SSU's N_{hij}	Number of Sample SSU's n_{hij}	Sampling Rate n_{hij}/N_{hij}
1	19	2	.1053
2	19	2	.1053
3	38	2	.0526
4	38	2	.0526
5	38	2	.0526
Totals	152	10	

$x_{hijk\ell}$ = 1 if the ℓ-th respondent in the k-th SSU of the j-th secondary stratum belongs to the population of interest and completes the package

0 otherwise.

$y_{hijk\ell}$ = 1 if $x_{hijk\ell}=1$ and the respondent chose the particular response category to the exercise

0 otherwise.

The PSU values of X_{hi} and Y_{hi} are then estimated as

$$\hat{X}_{hi} = \sum_j \frac{N_{hij}}{n_{hij}} \sum_{k=1}^{n_{hij}} \sum_{\ell=1}^{N_{hijk}} \frac{x_{hijk\ell}}{P_\alpha}$$

$$\hat{Y}_{hi} = \sum_j \frac{N_{hij}}{n_{hij}} \sum_{k=1}^{n_{hij}} \sum_{\ell=1}^{N_{hijk}} \frac{y_{hijk\ell}}{P_\alpha}$$

where P_α is the probability of selecting package α (1/10 for adults and 1/3 for seventeen-year-olds) and N_{hijk} is the total number of eligible respondents in the SSU.

Since not all of the sample households were screened, nor did all of the eligible respondents complete a package of exercises, it is necessary to modify the basic design weights to be applied to the observations in each SSU. Further modification is necessary to account for subsampling of large SSU's. The final estimation formula can be written with weights, W_{hijk}, as

$$\hat{P} = \frac{\sum_h \sum_i \sum_j \sum_k W_{hijk} \sum_\ell y_{hijk\ell}}{\sum_h \sum_i \sum_j \sum_k W_{hijk} \sum_\ell x_{hijk\ell}} \qquad (18)$$

where

$$W_{hijk} = \frac{N_h}{n_h} \frac{N_{hij}}{n_{hij}} F_{hijk} A_{hijk} \frac{1}{P_\alpha} \qquad (19)$$

The subscripts used in (18) are reviewed as follows:

h denotes a primary stratum
i denotes a PSU within stratum h
j denotes a secondary stratum within a PSU
k denotes an SSU within a secondary stratum
ℓ denotes a respondent within an SSU.

Other terms in formula (18) are:

N_h/n_h = PSU expansion factor

N_{hij}/n_{hij} = SSU expansion factor

F_{hijk} = Adjustment for non-response

A_{hijk} = Special expansion factor for subsampled PSU's.

The estimation procedures discussed here apply generally to both target populations (adults and out-of-school 17-year-olds). Final estimates for all 17-year-olds involve further weighting of the results from the in-school and out-of-school samples.

Appendix C

PROCEDURES FOR THE SCORING OF NATIONAL ASSESSMENT ESSAY EXERCISES

Sixteen of the Writing exercises asked the respondent to write in response to some stimulus--e.g., a picture of a forest fire, or instructions to write a letter to a pen pal. The method used for scoring these responses is sometimes called holistic scoring, a procedure which calls for trained readers to read an essay, form an overall impression about its quality--grammar, word choice, creativity, expression of ideas, depth of thought, etc.--and assign it a score according to a previously established scale. The steps for scoring procedures used for National Assessment exercises were developed by the Educational Testing Service (ETS) which worked with the Measurement Research Center (MRC) in the scoring of all papers.

Responses for Adults and 17-year-olds were read in the same three-day session in the fall of 1969; those for 13s were read at a session in early April, 1970, and for 9s, at the end of April, 1970.

At each session, four persons supervised the scoring operation, two representatives from ETS, a representative from MRC, and a chief reader. Under the chief readers were a number of experienced readers, called table leaders, each of whom was responsible for groups of from five to ten readers.

The two ETS and one MRC supervisory persons met some days before each of the scoring sessions to read a sample of responses for each exercises at the given age level. From a reading of a number of papers, these readers established a scale which described papers ranging from those which showed the poorest quality response to those which showed the highest quality response. The scale used numbers from "1", indicating the poorest quality, to "8", indicating the highest quality. A "0" was assigned papers which were blank or in some way indicated the respondent had not attempted to write anything.

This scale was established through the three supervisory people independently reading the sample of papers and evaluating them. Papers which received the same score from all three persons were called range finders and were set aside for use in training table leaders and readers. Characteristically, such papers were assigned even numbered values--2, 4, 6, and 8. Papers on which there was not consensus were set aside for training purposes, also.

During the actual scoring session, the supervisory personnel first spent about a half-day with the table leaders training them to use the scale for each exercise. Training was initiated by distributing copies of some of the range finders, but with their scores removed. The range finders were independently scored by the table leaders; a discussion followed to clarify why each paper was representative of a given scale point, and to identify those characteristics of the paper which accounted for it. If the table leaders were unable to agree with the chief reader and ETS personnel about the score assigned one or more of the range finders, these range finders were omitted from use as a further training device.

When the table leaders' training was completed, another half-day was spent repeating the training procedures with the readers. During the course of the actual scoring sessions, additional sample papers were distributed to the readers, assigned a score, and discussed to reconfirm that the scoring procedures being used remained constant over the entire course of the scoring session.

Each paper in the sample was read by two readers, and the sum of the scores they assigned was taken as the score for that paper. The readers read and assigned their scores independently, that is, without knowing the score given by the other reader, so that a lack of agreement between the two could occur. Table leaders periodically checked the scoring done and discussed the scores with the readers when discrepancies of more than one point were found. Occasionally discrepancies had to be resolved by one of the supervisory personnel.

In defining quality, no external criterion was specified; papers were assigned scores indicating quality relative to the other papers in the sample. A 4 paper, for example, can be said to be better than a 2 and not as good as a 6. The fact that the paper received a 4 says nothing specific about the paper's style, organization, diction, development of thought, or grammar.

The preceding paragraph suggests another problem related to the definition of quality: How do the holistic scores relate to qualities of writing said by experts to be important? Such qualities include organization, diction, thought, etc. Though such information might provide insight into the strengths and deficiencies evidenced by the students who wrote the exercises, it is not available for this assessment. Previous experience is believed to show that all these aspects of writing quality contribute to the results of holistic scoring of essays.

Appendix D

THE OVERLAP STUDY

The "Famous Person" exercise was administered at ages 13 and 17, and the essays for the two ages were scored by different teams of readers. At each age a preliminary reading was conducted to select essays to mark and exemplify categories of an 8-point scale where 1 is low and 8 is high. Certain essays, about whose quality the readers were in close agreement, were rated as deserving scores of 1, 2, 3, 4, up to 8. These were set aside as models for the readers to use in scoring the rest. An essay was given the score of the model it resembled most closely in the judgment of the reader. Two readers scored each essay. It can be seen that with this procedure, each age group had its own scale,and a particular score for one age could not be expected to be equivalent to that same score for the other.

In the Overlap Study a special scoring was carried out with samples of essays from both groups in order to provide a basis for equating the original scores. The original scores were the summed scores assigned by two readers who read essays for only one age. The summed scores thus ranged from 2 to 16.

Within each age group 15 essays with each summed score were selected, and if the models used for the original scoring were not among those chosen,they were added afterward. The criteria employed in selecting the 15 essays were:

1. Scores assigned by the original readers had to be close. In practically all cases they were identical or differed by only 1 point.

2. Subject or content would not give a clue to the age of the respondent.

3. The famous persons chosen were fairly representative of those chosen in the original sample.

Two hundred sixty-nine essays chosen from the 13-year-old group and 246 from the 17s formed the basis for the Overlap Study.

The 515 essays were then merged into a single collection and scored by a new group of four readers in much the same fashion as the original scoring had been done. Two or three were selected to be the models for each point on the scale and the others graded with reference to them. All four readers participated in choosing the models. In the scoring session each essay was read by two judges. Each reader used the 1 to 8 score scale, so again the sum of the two readings yielded scores ranging from 2 to 16.

The scores assigned in this reading are called overlap scores, and the relations of the overlap scores to the original scores for the two age groups are shown in Tables D-1 and D-2. A cell entry in Table D-1 shows how many of the 13s in the Overlap Study sample received a particular combination of original and overlap scores. For example, an original score of 9 and an overlap score of 5 was assigned to 7 of the 13s. Similar information for the 17s is given in Table D-2. It can be seen that the agreement on scoring between the original readers and those participating in the overlap reading was not perfect; that is, at any particular original score there is a range of overlap scores and at any particular overlap score there is a range of original scores. The general drift of scores to the left of the diagonal from the lower left to upper right corners of the table and the piling up at the lower levels of overlap scores also suggest that the readers in the Overlap Study were harsher than the original readers.

A graphical comparison of the overlap scores assigned in the two age groups is given in Figure D-1. For each overlap score, the percent of 13-year-olds and of 17-year-olds who reached or exceeded that score is shown. As might have been expected, the percentages for 17s are consistently above those for 13s for any given score.

The samples of essays used in the Overlap Study are not representative of their respective total groups with respect to the relative frequency with which the various original scores were assigned. The samples were selected so as to have about

Table D-1

Number of 13s in the Overlap Study Receiving Each Combination of Original and Overlap Scores

Ori- ginal Score	Overlap Score															
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total
16									2	2	6	2	4		1	17
15						1	3	1	3	4	1	3				16
14				1	2	5	1	5	1	1		1		1		18
13						2	5	3	5			1				16
12					2	1	4	7	2							16
11				1	2	7	4			1						15
10		1	1	5	3	3	3	2								18
9			2	7	2	4	4		2							21
8		2	4	6	9	8	2	1								32
7	1	2	6	2	1	2	1	1								16
6	4	7	5	2	1											19
5	7	7	2													16
4	11	3	2	1												17
3	14	1														15
2	14	3														17
Total	51	26	22	25	22	33	27	20	15	8	7	7	4	1	1	269

Table D-2

Number of 17s in the Overlap Study Receiving Each Combination of Original and Overlap Scores

Original Score	Overlap Score															
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total
16									2	2	1	2	5	4	2	18
15									3	1	5	2	2	1	3	17
14							1	1	1		5	3	3		2	16
13							1	4	3	3	1	1	2	2		17
12							3	2	5	4	1	2				17
11					2	1	4	2	1	4	2		1			17
10					2	1	4	4	2	2	1					16
9					4	1	2	5	2	1						15
8				2	3	5	4		1		2		1			18
7	1	2	2	3	4	1	1	2								16
6		2	2	8	2	2	1									17
5	1	1	5	3	3		2									15
4	10	2	3	2												17
3	12		2	1												15
2	14	1														15
Total	38	8	14	19	20	11	23	20	20	17	18	10	14	7	7	246

PERCENT OF 13-YEAR-OLDS AND 17-YEAR OLDS IN THE OVERLAP STUDY REACHING OR EXCEEDING EACH OVERLAP SCORE

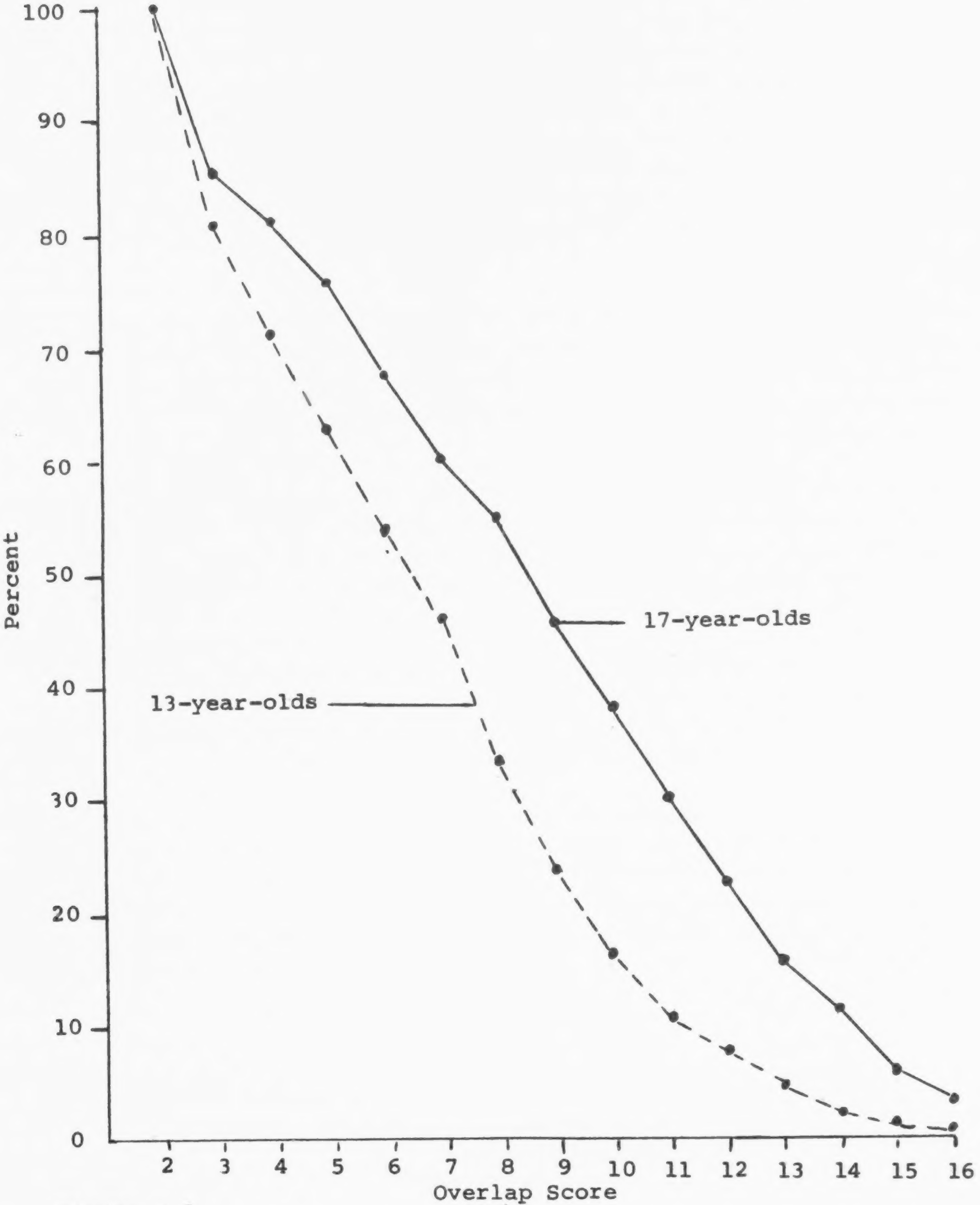

Figure D-1

15 papers at each original score point (with the exceptions of 8 and 9 for the 13s), whereas in the total groups there tended to be some concentration of scores in the middle range, with relatively fewer high and low ones. Comparisons of the quality of writing done by 13s and 17s should therefore be made on the basis of all 13s and 17s, not just those in the overlap samples. Ideally, the overlap score could serve as a medium by which a given original score for one age group could be equated to a particular original score for the other. The spread of corresponding original and overlap scores referred to above makes this degree of precision impossible, however. Nevertheless, some limited comparisons may be valuable and rough estimates of equivalences can be made. The method of estimation is described below.*

The distributions of original scores for the two ages are shown in Table D-3. The cumulative percent columns of this table were used to construct the graphs in Figure D-2, showing the percentage of each group receiving original scores at or below each value.

An attempt was made to compare some essays of low, medium, and high quality in each group. For the 13s, Table D-3 shows that 81% of them earned original scores below 13; only 19% made 13 or better. The score 13 was chosen as a reference score for high 13s, therefore. A score of 13 may be considered to extend from the points 12.5 to 13.5; hence 12.5 is the point below which 81% of the 13s' scores lie. This point was marked with an open triangle on the age 13 curve in Figure D-2 and may be seen to be directly above 81% on the horizontal axis. This was the only reference point based on age 13 data.

Three reference points were used for the 17s: 3.5, corresponding with the score 4, below which 14% of the 17s' scores were found; 7.5 since 44% of the 17s received original scores below 8; and 11.5, with 83% of the 17s below it. These reference points are marked with filled triangles on the curve for the 17s in Figure D-2.

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*The procedure and the equivalences were worked out by Dr. William Coffman, a member of National Assessment's Analysis Advisory Committee.

Table D-3

Original Scores of 13s and 17s on Overlap Task 8 ("Famous Person")

Score	Percent		Cumulative Percent	
	13s	17s	13s	17s
16	3	1	100	100
15	3	1	97	99
14	4	3	94	98**
13	8	5	90**	94
12	9	6	81**	89
11	10	8	73	83
10	9	9	63	75
9	10	9	54	66
8	9	13	44	57
7	9	8	35	44
6	7	8	26	36
5	6	8	19	28
4	5	6	13**	20
3	2	4	9	14
2*	7	10	7	10

*Includes some scores of 1 and 0 assigned by some readers.

**Accumulated rounding is responsible for the discrepancies between the figures in the percent column and those in the cumulative percent column.

PERCENTAGES OF ALL 13-YEAR-OLDS AND ALL 17-YEAR-OLDS RECEIVING SCORES BELOW EACH ORIGINAL SCORE VALUE

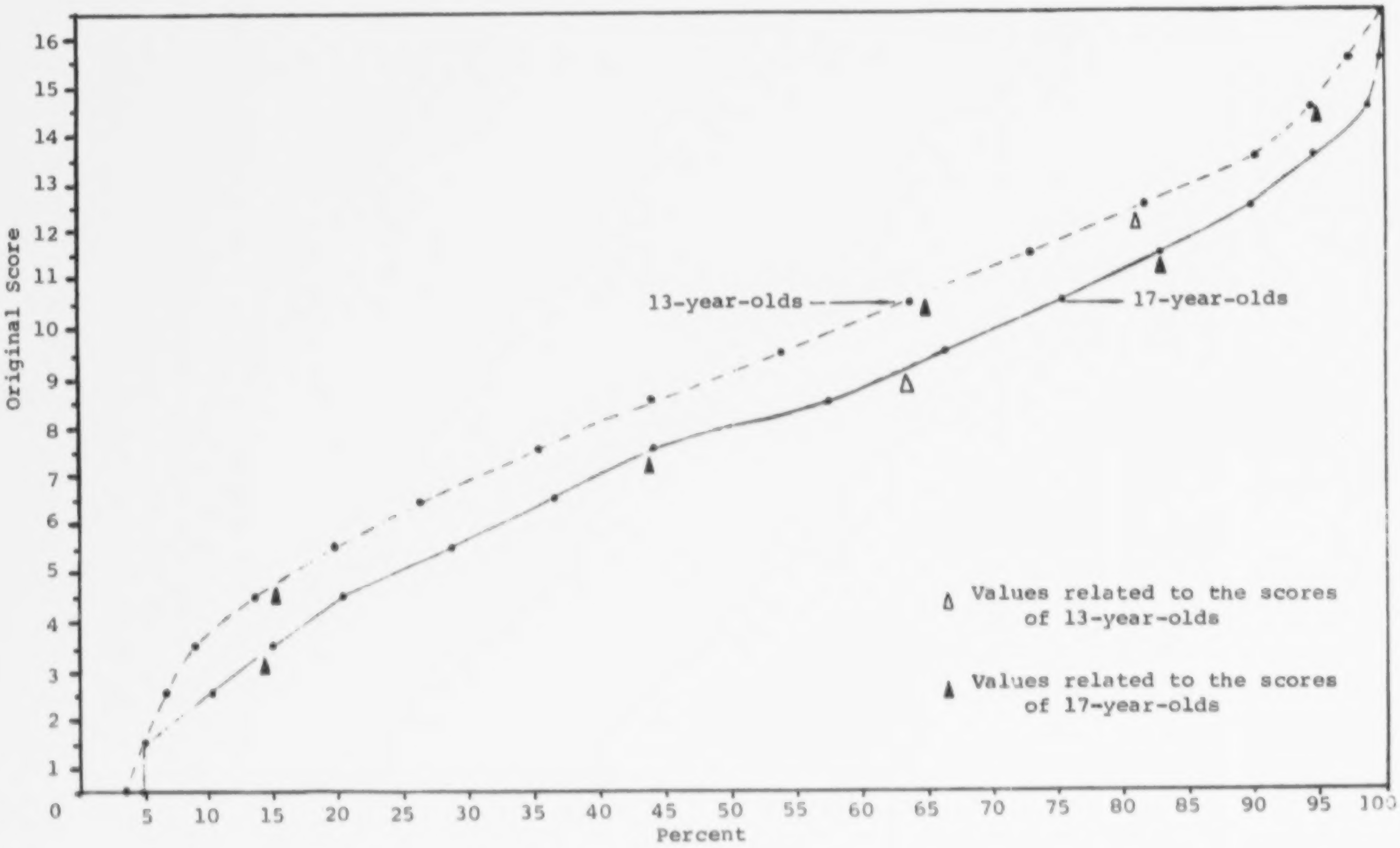

Figure D-2

From the data of the overlap sample the average overlap score for 13s and for 17s with each original score was computed and plotted in Figure D-3. A smooth curve was then drawn for each age, representing the trend of averages. The two curves generated in this fashion provided a basis for equating scores for the two ages.

The reference score 13 for the 13s was plotted as an open triangle on the curve for the 13s in Figure D-3. Directly below it a second open triangle was plotted on the curve for the 17s. This point on the curve corresponds with an original score of approximately 9.5. Again this is treated as a score on a continuum, covering the range 9.0 to 10.0, so 9.0 is taken as the original score reference point for the 17s. Returning to Figure D-2, this reference point is plotted as an open triangle on the curve for the 17s. Below this triangle, on the horizontal axis, the cumulative percentage is 63. It is estimated, then, that the essays of 63% of the 17s were below the level of quality that divided the lower 81% of the 13s from the upper 19%. Or, as the text of Chapter 4 indicates, 37% of the 17s did better than the poorer 81% of the 13s.

Similar procedures were followed for the three reference scores for the 17s, with the results given in Table D-4. The reference scores and points are plotted as filled triangles in Figures D-2 and D-3.

In Table D-4 it appears that the original score 4 has 14% of the 17s below it. On Figure D-2 therefore a filled triangle is plotted on the curve for the 17s at 3.5, the lower limit of the score range for 4, and it lies directly above 14% on the horizontal axis. On Figure D-3, however, the corresponding triangle is plotted at 4, rather than 3.5, and it lies above the overlap score 3.2. Directly above the filled triangle for the 17s a triangle for the 13s is plotted, and it lies opposite the original score 5.2 on the vertical axis. The lower limit of the score range for 5.2 would be 4.7, so on Figure D-2 a filled triangle is plotted on the 13s curve opposite this point. This triangle is directly above 16% on the horizontal axis, so it is judged that 16% of the 13s produced essays below the level of quality that divided the poorer 14% of the 17s from the better 86%. This estimate of 16% is recorded in the last column of Table D-4.

RELATION BETWEEN ORIGINAL AND OVERLAP SCORES
FOR 13 AND 17-YEAR-OLDS IN THE OVERLAP STUDY SAMPLE

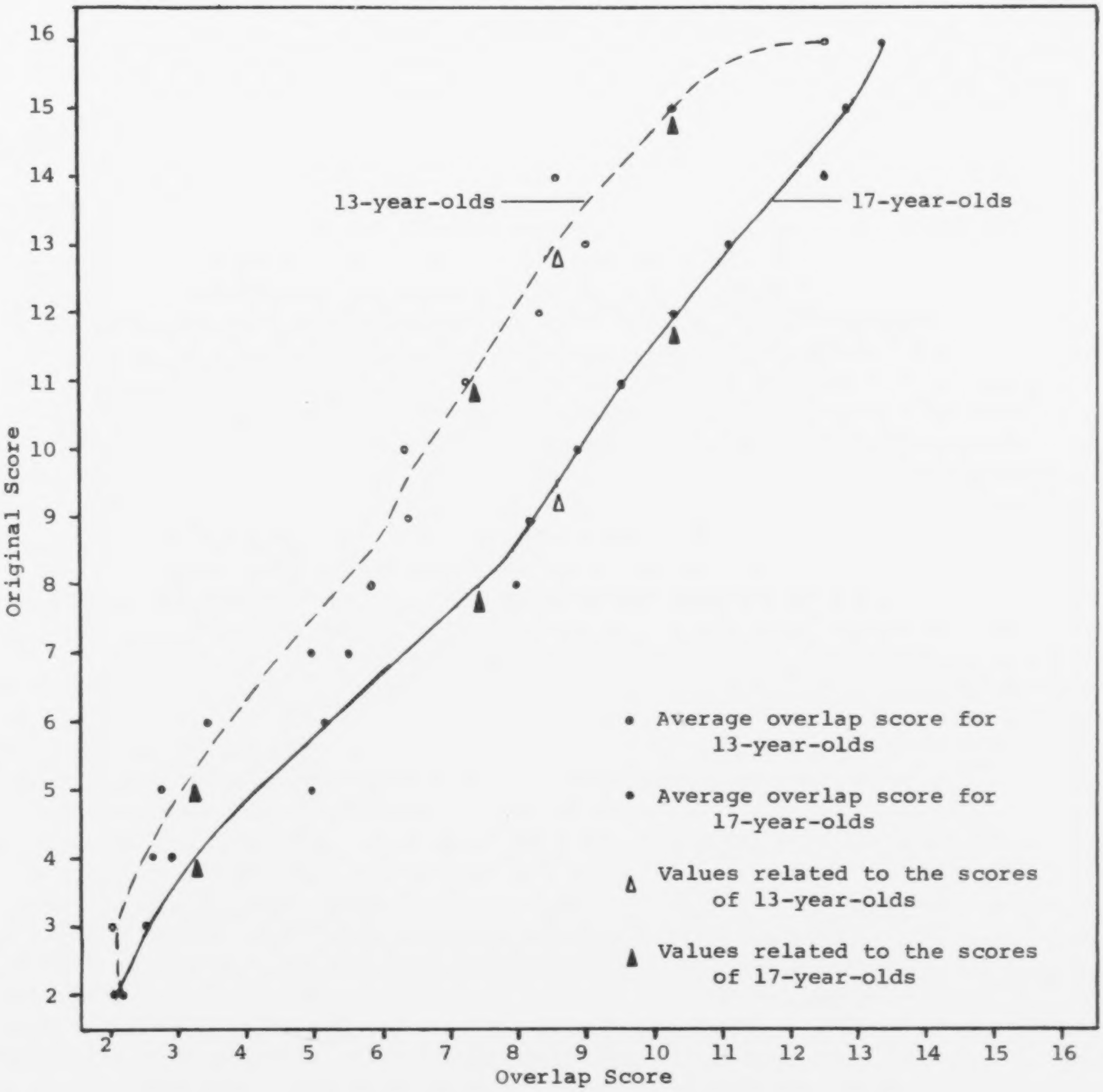

Figure D-3

Table D-4

Equating of Original Scores for 17s and 13s

Original Reference Score for 17s	Lower Limit of Score Range	Percentage of 17s below Reference Score	Plotted Overlap Score	Estimated Original Score for 13s	Lower Limit of Score Range	Estimated Percentage of 13s below Lower Limit
4	3.5	14	3.2	5.2	4.7	16
8	7.5	44	7.4	11.1	10.6	65
12	11.5	83	10.3	15.0	14.5	95

Table D-4 shows that 44% of the 17s received original scores below 8, so the filled triangle is plotted at 7.5 on the 17s curve in Figure D-2, and lies above 44% on the horizontal axis. In Figure D-3 the filled triangle is plotted opposite the score 8 on the vertical axis, and lies above the overlap score 7.4. Directly above this a filled triangle is plotted on the 13s curve, and it is opposite the original score 11.1. The lower limit for this score would be 10.6, and a filled triangle opposite this point is plotted on the 13s curve in Figure D-2. It lies directly above 65% on the horizontal axis, and this value is recorded in the last column of Table D-4. It is therefore, estimated that only 35% of the 13s could write essays as good as or better than the level of quality reached or exceeded by 56% of the 17s.

Finally, Table D-4 shows that 83% of the 17s essays earned original scores below 12. This is represented by the filled triangle opposite 11.5 and above the 83% mark in Figure D-2. In Figure D-3 the corresponding triangle is plotted on the 17s curve opposite original score 12 and above overlap score 10.3. The triangle above it, on the curve for the 13s, is opposite the original score 15.0, whose lower limit would be 14.5. A filled triangle opposite this point is plotted on the 13s curve in Figure D-2, and lies above the 95% point on the horizontal axis. It is estimated, then, that only 5% of the 13s, as contrasted with 17% (100% - 83%) of the 17s, could do better than 83% of the 17s on this exercise.

APPENDIX E

NUMBER OF RESPONSES FOR YEAR 01, BY PACKAGE AND AGE[a]

Package Number	Age			
	9	13	17	Adult
1	2455	2436	2226	895
2	2389	2421	2166	875
3	2466	2416	2214	860
4	2456	2415	2171	877
5	2463	2407	2200	892
6	2419	2410	2194	885
7	2424	2396	2168	920
8	2406	2441	2133	893
9	1438	2383	2114	903
10	1863	1412	2173	634
11	1852	1883	2202	—
12	—	1855	1315	—
13	—	1844	1797	—
14	—	—	1771	—
Total	24,631	28,719	28,844	8,634

[a] For each age, the total number of exercises was divided into packages so that each participant would spend only about 50 minutes completing his set of exercises. As the above table shows, there were different numbers of packages for the different ages since the total number of exercises and the time needed to complete them varied from age to age.

Some participants--the out-of-school 17s--were asked to take four packages, and they were paid $10 for their time. Because some people responded to more than one package, the number of responses to some packages is greater than the number of respondents.

The age/package/exercise number code is found in the upper left corner of each exercise page in this report. For example, a code of 9:11-21 indicates age 9, package 11, and exercise 21.

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